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Equity Research:
Heidelberg Materials Part 2

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Abstract

This thesis examines Heidelberg Materials AG, a global leader in construction materials, focusing on its strategic positioning, valuation as well as risk assessment. It highlights the current market environment, key industry trends, including an increasing focus on sustainability and the digitalization to catch up. Valuation methods such as CCA, CTA and a Monte Carlo simulation emphasize the impact of the market on the final determination of our target share price. The results underline Heidelberg Materials' solid industry standing, adaptability to sustainability trends, but also challenges in managing industry risks, providing a comprehensive perspective on a future outlook of Heidelberg Materials.

Keywords

Heidelberg Materials, Construction Materials, Cement, DAX40

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This report is part of the Joint Equity Research report on Heidelberg Materials AG (annexed), developed by Damian Riedmann and Kai Kiesinger and should be read as an integral part of it.

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Introduction

This report represents an individual component of the Joint Equity Research report on Heidelberg Materials AG (HEI), a global leader in construction materials. The goal is to evaluate the company's target share price relative to its current market valuation. Through a comprehensive qualitative and quantitative analysis, we derived a **target share price of €126.62** (including a dividend of €3.19), implying a total upside of 3.35% compared to the current share price of €125.60 (as December 12th, 2024). Based on these results, our recommendation is to **HOLD** the stock.

The joint report is structured as follows: it begins with a detailed description of the company's profile, history, business activities and its strategic outlook. This section also covers HEI's recent financial performance, stock development dynamics and M&A strategy. It then explores the broader market and industry landscape, addressing macroeconomic trends, competitive dynamics by region and emerging sectoral trends. The subsequent sections focus on key risks facing Heidelberg Materials, a thorough ESG evaluation as well as a comprehensive analysis of value drivers and forecasts. Key drivers include the number of production plants, average tons sold per plant, price per ton sold (forming the basis of our bottom-up forecasts), business performance and margin evolution, capital expenditures, working capital management and finally dividend as well as capital structure analysis. The report concludes with a detailed valuation chapter, covering WACC computation, DCF analysis, sensitivity and scenario analyses, CCA, CTA, DDM, APV, LBO analyses and a Monte Carlo Simulation, resulting in a final recommendation.

This individual report covers the market and industry overview, key risks, specific parts of the valuation chapter (scenario analysis, CCA, CTA, APV, LBO analyses and the Monte Carlo Simulation) and our final investment recommendation.

My counterpart, Kai Kiesinger, focuses on HEI's company description, key value drivers as well as forecasts and the remaining sections of the valuation chapter, including WACC, DCF, sensitivity analysis and the DDM.

Market and Industry Overview

Macroeconomic Environment

While Europe continues its recovery, Germany struggles to keep pace

In 2024, the European economy recovered moderately after a phase of stagnation. Inflation in the EU fell from 6.4% in 2023 to 2.6% in 2024, which **strengthened the purchasing power of households and boosted private consumption**. With the recovery in real wages and improved credit conditions, domestic demand increased, which supported economic growth. The EU Commission expects growth of 0.8% for the eurozone in 2024, driven primarily by Poland and Spain (both with 3.0%). Germany, on the other hand, remains an underperformer and will shrink by 0.1% in the current year, following a decline of 0.3% in the previous year, which means a two-year recession. German industry is suffering from a **weak order situation** due to lower global demand for industrial goods, increasing global economic fragmentation and sluggish investment activity.¹

Expanding economy in the US

Despite contrary predictions by various analysts, the US economy is bursting with strength in 2024 and is receiving an additional tailwind following the election of Donald Trump, as share prices and the US dollar have risen sharply. GDP rose by 2.8% in Q3 2024 alone.² This development is mainly driven by **strong private consumption** as well as **rising exports** (especially of capital and consumer goods), with the economy defying the still **comparatively high interest rates** of the US Federal Reserve (Fed) of 4.5-4.75%. However, these are likely to be lowered by 25 bps by the Fed this December, while the rise in exports is not seen as sustainable by economists, as global demand is dampened by the uncertain economic situation in China and the fragile situation in the eurozone.³

Resilient growth in Asia

In 2024, Asia has recorded moderate economic growth of 4.6% so far, however, this is below the level before the pandemic (5.0%).⁴ East Asia benefits mainly from export demand for semiconductors from Korea and Tapei, while South Asia benefits mainly from the solid growth of India, driven by a growing middle class and infrastructure investments, as India is the fastest growing country in Asia with 7% GDP growth in 2024, largely driven by the Indian government goal to spend \$1,400bn on infrastructure by 2025. The Pacific region is benefiting above all from the upturn in tourism.⁵ At the same time, **China is slowing down regional momentum**: persistent weakness in the real estate sector, triggered by years of

¹ European Commission, “Autumn 2024 Economic Forecast”

² U.S. Department of Commerce, “Commerce Data Show Strong Economic Gains Due to Americans Making and Spending More”

³ Mutikani, Lucia, “Smaller US trade deficit supports strong economic growth estimates for third quarter”

⁴ International Monetary Fund, “Asia and Pacific”

⁵ Asia Development Bank, “Economic Forecasts for Asia and the Pacific”

debt-financed growth, speculation and regulatory intervention, as well as weak consumer confidence are depressing growth and thus weighing on the local financial markets.⁶

The global economy is expected to see slow growth in 2025, with the IMF projecting a global growth rate of 3.2%. However, this growth is uneven across regions.

Euro Area		
Year	Inflation rate	Real GDP growth
2025	2.0%	1.2%
2026	2.0%	1.5%
2027	1.9%	1.4%
2028	2.0%	1.3%
2029	2.0%	1.2%

Figure 1: Inflation rate and real GDP growth, Euro Area, IMF forecast

The **real GDP growth** forecast for the Euro areas has been revised downward to **1.2% in 2025** by the IMF, with larger economies like Germany and France contributing to the slowdown. Growth is projected to develop flat, peaking at 1.5% in 2026. Structural challenges, including aging populations, weak productivity as well as the pressure of the energy transition, hinder the region's recovery and are expected to dampen growth in the years ahead. However, **inflation is expected to stabilize near 2%** over the coming years, driven by declining energy prices and gradual wage moderation, with disinflation occurring faster than in emerging markets.

North America		
Year	Inflation rate	Real GDP Growth
2025	2.0%	2.1%
2026	2.1%	2.0%
2027	2.2%	2.1%
2028	2.2%	2.1%
2029	2.2%	2.1%

Figure 2: Inflation rate and real GDP growth, North America, IMF forecast

For North America, the outlook is more optimistic, with a **real GDP growth forecast of 2.1% in 2025**, reflecting stronger consumer spending and labor market resilience. Fiscal policy remains loose, particularly in the US, with high deficit driven by increased interest expenses. However, inflation has moderated, and the Federal Reserve has begun reducing interest rates, supporting economic activity and stabilizing **inflation rate at 2%**. However, the planned tariffs and trade restrictions under the Trump administration could have a long-term negative impact on foreign trade and therefore on the region's growth potential.

Asia Pacific		
Year	Inflation rate	Real GDP Growth
2025	3.8%	4.4%
2026	3.4%	4.3%
2027	3.2%	4.1%
2028	3.2%	4.0%
2029	3.2%	4.0%

Figure 3: Inflation rate and real GDP growth, Asia Pacific, IMF forecast

The Asia Pacific region remains a key driver of global growth, with **India** and **Southeast Asia** experiencing robust domestic demand as well as significant public as well as private investments in tech and infra, resulting in projected **real GDP growth of 4.4%** and an **inflation rate of 3.8%** in 2025. Meanwhile, **China** faces medium-term challenges, including property sector issues, weak consumer sentiment, declining exports, and structural concerns such as high debt and demographic shifts. Even government incentives could strain public finances, while export-oriented subsidies in key sectors could worsen the situation. These issues have led to a downgraded outlook, with China's slowdown posing risks for global trade and commodity markets (expected real GDP growth of 3.3% by 2029).⁷

⁶ Kunath, Gero, „China's real estate crisis“

⁷ IMF, „World Economic Outlook“

Market Analysis

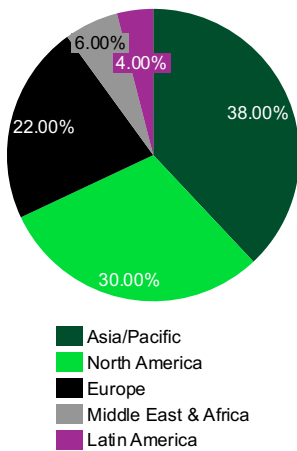


Figure 4: Global construction materials market split by regions

The global construction materials market was estimated at approx. **\$1,300bn in 2023 and projections show growth to approx \$2,000bn in 2034**. This implies a **CAGR of 4.0%** over the projection period. The growth is, amongst other factors, based on the globally increasing demand for residential apartments driving the global construction activity. Additionally, there are significant investments into infrastructure across the globe, which are also a driver for demand of construction material. Thereby, the construction materials industry is closely linked to the construction industry, as it supplies the materials required for construction projects. The market itself can be divided into metallic building materials (aluminum, steel, metals), mineral building materials (bricks, cement, concrete aggregates, asphalt), wood-based building materials and other materials (e.g. floor coverings, coatings and sealants).⁸ HEI is only active in the mineral sector. However, we analyze the entire construction materials market to better understand broader industry trends and potential shifts that could impact HEI's business environment.

The Covid-19 pandemic caused significant disruption in the construction industry, particularly in the availability of building materials. **Global supply chain issues** caused by factory closures, transportation disruptions and labor shortages led to **shortages and price fluctuations** for key materials such as timber, steel and concrete. This impacted construction projects worldwide as rising prices and delays in production and delivery affected project schedules and budgets, which is still noticeably today.⁹

■ Asia-Pacific

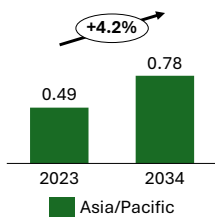


Figure 5: Projected CAGR (23-34) for Asia-Pacific

With **38% of the total market**, the Asia-Pacific region accounts for the largest share in 2023. At the same time, this region will grow at a **CAGR of 4.2%** until 2034, making it the second-largest growth region. Growth will be driven primarily by large construction projects in densely populated countries, especially in India, urbanization and the rising demand of residential and commercial buildings, for which cost-effective buildings materials are required.¹⁰

■ North America

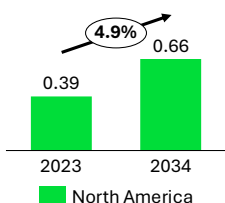


Figure 6: Projected CAGR (23-34) for North America

North America is the second largest region with 30%. The **CAGR is expected to be around 4.9%**, making it the region with the highest growth. North America has the highest CAGR due to significant infrastructure investments, urban development and growing demand for sustainable building solutions, driven in

⁸ Mercer Capital, "Construction & Building Materials Industry Segments Experience"

⁹ Room 35, "The Impact: Effects Of COVID19 In The Construction Industry"

¹⁰ Precedence Research, "Building Materials Market Size"

particular by government initiatives and the modernization of ageing infrastructure.¹¹

▪ Europe

With a **market share of 22%**, Europe is the third largest market. Growth in Europe is strongly characterized by sustainability, environmental regulations and energy-efficient construction methods. The modernization of infrastructure, ongoing urbanization and the focus on innovative, environmentally friendly materials are driving development in this region. However, the **CAGR is expected to be 2.7%**, as market growth is being held back by the already mature infrastructure, slower economic growth and a stronger focus on renovations rather than large-scale new builds.¹²

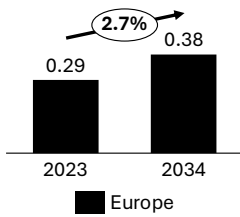


Figure 7: Projected CAGR (23-34) for Europe

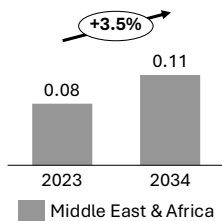


Figure 8: Projected CAGR (23-34) for Middle East and Africa

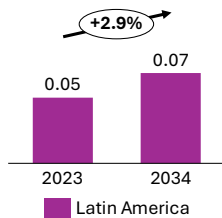


Figure 9: Projected CAGR (23-34) for Latin America

▪ Other

Market growth in the Middle East and Africa (6% of the total market in 2023) is estimated at a **CAGR of 3.5%** due to urbanization, infrastructure and a shift towards sustainable materials. However, the growth is held back by political instability, economic inequality and a heavy dependence on oil revenues, with limited infrastructure development in less affluent countries, as well as high financing problems.¹³

The Latin American construction materials market (4% of the total market in 2023) is growing due to public investments in infrastructure, education and healthcare as well as renewable energy and housing projects across key countries. However, the country has the lowest **CAGR at 2.9%**, due to economic challenges such as high inflation, rising interest rates, political instability and limited access to foreign investments, which are slowing down project execution.¹⁴

Competition

Due to the heavy weight of cement and the resulting need for short delivery distances, Heidelberg Materials primarily faces competition from a variety of local players, such as Cementos Molins in Spain or Dangote PPC in Africa. However, in key regions, certain competitors hold greater significance due to their size, geographical presence, an international footprint and similar product portfolios. We identify the following companies as Heidelberg Materials' key competitors in their three key regions (according to HEI's market split by regions), though numerous other local competitors exist.

Variety of local competitors

¹¹ StratEdge Analytics, "Construction Materials Market Size"

¹² Marketresearch.com., „Europe Construction Materials Market Summary"

¹³ P&S Intelligence, "U.A.E. Construction Material Market Size & Share Analysis"

¹⁴ GlobalData, „Latin America Construction Market Size"

- Europe



CRH plc (Ireland) generated €32.05bn in revenue in 2023 with an EBITDA margin of 17.5%, with operations in 28 countries and employing 78,500 people. 65% of sales were from America and 35% from Europe. CRH's product range, which includes aggregates, cement, concrete, and asphalt, makes it a key competitor to HEI in both regions, despite having a broader portfolio, including infrastructure solutions.



Holcim Group (Switzerland) earned €28.7bn in revenue in 2023 (EBITDA margin: 21.8%) with 63,450 employees. Its core segments are cement (45%), ready-mix (21%), and aggregates (12%). Most sales are in the USA (29%) and in Europe (27%). Holcim is a major competitor due to its similarities in business structure, product portfolio and global reach.



Buzzi Unicem S.p.A. is an Italian cement and building materials manufacturer with €4.3bn in revenue in 2023 and employing 9,600 people. The company focuses on environmentally friendly products and operates two business units: concrete (70% of sales) and cement & aggregates (30% of sales). 40% of its sales are generated in the U.S., while 60% are generated in the European markets.

- America



Cemex S.A.B. de C.V. (Mexico) achieved €15.9bn in sales in 2023 (EBITDA margin: 17.3%) with 46,000 employees. Its core product areas are cement (42%) and ready-mix (33%), with a geographical focus on Mexico, the U.S., and Europe. Cemex is a major competitor due to its size and focus on sustainable, innovative solutions like its Vertua portfolio (concrete products with net-zero CO2).



Martin Marietta is a leading supplier of building materials in the USA. In 2023, the company generated €6.2bn with an EBITDA margin of 31.2% and with over 9,000 employee. In addition to the main business of aggregates, the other business units are cement, ready-mix concrete and asphalt & paving. Almost 99% of sales are generated in the USA, which makes Martin Marietta less of a global competitor, but even more a strong American competitor.



Votorantim Cimentos is the largest cement company in Brazil and one of the largest in the world. The company generated a revenue of €4.3bn in 2023 (EBITDA margin of 20.6%) and has over 15,000 employees. Votorantim is active worldwide with a focus on North and South America, but also in some European countries. In addition to cement and ready-mix concrete, the company also offers aggregates and other building materials such as clinker and mortar.

- Asia



Anhui Conch is the largest cement manufacturer in China. With 78% of sales, the focus is on cement, but aggregate, concrete and clinker are also offered. In 2023, the company generated a turnover of €18.2bn (EBITDA margin of 14.3%) with over 50,000 employees. Only 4% of turnover was generated from product exports outside China. This means that the company has little international presence but is a major competitor in China.



China National Building Material (CNBM) is a Chinese state-owned company and one of the largest building materials manufacturers globally. In 2023, it generated €44.7bn in revenue (EBITDA margin of 12.5%) and employed over 200,000 people. Over 90% of its sales come from China, with segments in basic building materials (57%), new materials (23%), and engineering services (20%).



Taiheiyo Cement has 12,700 employees and a turnover of €5.5bn in 2023/2024 (EBITDA margin of 13.9%). While 61% of the main turnover is generated in Japan, 28% is realized in the USA and 11% in the Asia/Pacific region. Divided into 5 business units, the focus is clearly on the cement business with 71% of sales. The other business divisions are mineral resources, environmental and construction materials.

Prevalent Trends

3 megatrends are shaping the industry

The construction materials industry is significantly influenced by three megatrends – socio-demographic change, the growing focus on sustainability as well as digitalization.

- Socio-demographic development

The world's population has grown rapidly since 1950: the mark of 5bn people was passed in 1987, the 7bn mark in 2011 and, as of the end of 2022, there are over 8bn people on this planet. According to UN estimates, the population will grow to 9.7bn by 2050 and peak at 10.4bn in the 2080s before stabilizing by 2100. This growth will be accompanied by a **growing need for housing and infrastructure**, which will increase the demand for building materials. At the same time, **living space per person is increasing**: In Germany, it rose from 39.5sqm in 2000 to 47.5sqm in 2023¹⁵, a trend that is also being observed in other European countries.¹⁶

In addition, more and more people are moving to urban areas. While more than two thirds of the world's population lived in rural regions in 1950, by 2015 more

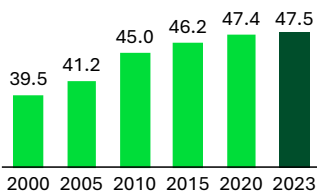


Figure 10: Living space per capita development in Germany (in sqm)

¹⁵ Statista, "Living space per capita in apartments in Germany from 1991 to 2023"

¹⁶ Eurostat, "Housing in Europe – 2023 edition"

than half (approx. 54%) of the people were already living in cities. This **urbanization trend poses challenges**, particularly due to the lack of available building land in cities. The focus is therefore on **redensification**, in which existing areas are used more intensively. This creates significant opportunities for the building materials industry, as redensification demands specialized materials and innovative methods, opening new markets and enhancing the industry's role in urban design.

- Climate protection and resource efficiency

The construction materials industry ranks as the second-largest segment to global CO2 emissions

The materials sector is one of the largest contributors to global carbon emissions, producing approx. 918 tons of CO2 per \$1mn in turnover, second only to the utilities sector, which emits 2,634 tons. Within the materials sector, **cement production stands out as a significant driver of emissions**, generating 5,400 tons of CO2 per \$1mn in turnover. This impact is partially offset by lower-emission activities like metal or paper production.¹⁷ Moreover, **the construction industry as a whole is a major consumer of energy and raw materials, accounting for nearly 40% of emissions in the EU** as well as a third of waste generated in the aforementioned.¹⁸ Therefore, reducing emissions and resource consumption is a critical priority for the sector. To address these challenges, the industry is increasingly focusing on circular economy practices. According to research by Accenture, the overall circular economy has the potential to unlock an additional \$4,500bn in economic value by 2030, with the building materials sector contributing a significant share to this growth.¹⁹

Innovative approaches such as selective demolition enable the separation of concrete components like sand, gravel and cement paste for reuse, significantly reducing waste and conserving resources. Additional initiatives include the adoption of renewable construction materials, resource-efficient techniques like 3D printing, and sustainable building practices that emphasize energy efficiency and extended building lifespans. The European Union actively supports these efforts, recognizing the construction sector's potential to drive circularity. Key initiatives, such as the "Circular Economy Action Plan" and the "Waste Framework Directive," promote recycling, particularly of demolition waste, and align with the EU's net-zero and climate neutrality goals. Collectively, these measures not only reduce the environmental footprint of the construction industry but also position it as a central player in achieving sustainability objectives.²⁰

¹⁷ Visual Capitalist, "Ranked: The Most Carbon-Intensive Sectors in the World"

¹⁸ European Commission, "Construction and Demolition Waste"

¹⁹ Accenture, „The Circular Economy Could Unlock \$4.5 trillion of Economic Growth, Finds New Book by Accenture"

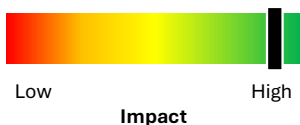
²⁰ European Commission. "Circular Economy Action Plan."

▪ Digitalization

The construction industry is the least digitized industry

The construction industry has enormous untapped potential in the area of digitalization. According to the Bavarian Research Institute for Digital Transformation, the industry ranks last in the digitalization index.²¹ Similarly, a study published in 2024 by the Royal Institution of Chartered Surveyors shows that 43% of respondents in the construction materials industry have hardly any digitalized processes - a stagnation compared to 2022 and 2021.²² This highlights the opportunities that technological advances offer to transform construction sites and factories in the coming years. As early as 2016, Roland Berger predicted that **93% of construction companies consider digitalization to be central to all company processes**. Traditional sales models with sales staff tied to specific territories are proving to be inefficient, difficult to scale and expensive. At the same time, the generational shift is increasing the demand for online purchasing options that enable more flexible and efficient processes. Digitalization offers companies in the building materials industry significant opportunities for process optimization and market development. According to a recent study of PwC, 88% of respondents see **great potential for the construction industry in simulation and visualization (+11%)**. At the same time, only 36% rate their skills in this area as good, which shows the existing knowledge gap when it comes to digitalization.²³ Companies that successfully integrate digital technologies can strengthen their competitiveness. Therefore, we believe that the upcoming years will be characterized by a **digital race to catch up in the whole construction materials industry**.

Main Risks



Skilled labour shortage: The shortage of skilled workers in Europe poses considerable challenges for the construction industry. A survey conducted by the Association of German Chambers of Industry and Commerce (DIHK) revealed that **65% of construction companies** surveyed in November 2024 see the shortage of **skilled labour as a risk to their economic development**.²⁴ This challenge is a global phenomenon, with 75% of employers worldwide struggling to fill positions, according to a recent study. The issue is particularly pronounced in **the building materials sector, where 84% of employers report difficulties**.²⁵ This bottleneck is driven by weaker population growth, an aging workforce – by 2030, one in six

²¹ bidt, “Digitalization index”

²² RICS, „Digitalization in construction report 2024“

²³ PwC, „PwC study on the construction industry 2023“

²⁴ Bauindustrie, “Fachkräftesituation im Bauhauptgewerbe”

²⁵ Manpower Group, “Skills shortage study 2024“

people globally will be over 65 years, with this figure expected to double by 2050²⁶ – as well as low wages. The consequences include **delays in construction projects, rising costs, and reduced competitiveness**. In addition, the shortage of skilled workers is hindering the implementation of digitalization measures, which could jeopardise the industry's innovative strength in the long term.

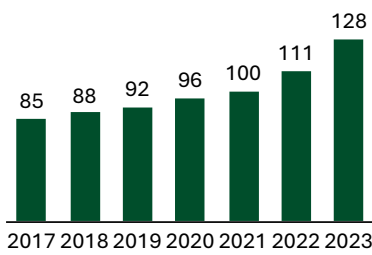
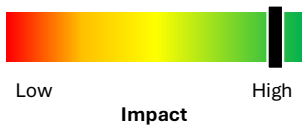
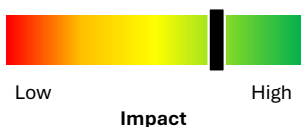


Figure 11: Producer price index for sand and gravel in Germany (2021 = index 100)



Fluctuating energy and material prices: Heidelberg Materials is highly exposed to fluctuations in energy and raw material prices due to its energy-intensive production. The company therefore bears a **high risk**, as **sudden supply shocks, changes in demand or geopolitical events** can lead to price increases and supply bottlenecks, as was the case during Covid-19 or the war in Ukraine, for example. As their products make them dependent on the general construction industry, which is also cyclical, the fluctuation only increases. This makes planning, cost management and production more difficult and jeopardizes competitiveness, especially if the company is dependent on a few raw materials without alternatives, as is the case with a cement and concrete manufacturer. This is particularly evident with sand and gravel, essential raw materials for producing concrete and asphalt.²⁷ Challenges such as persistent opposition to maintaining or expanding domestic extraction sites, lengthy planning processes, and rising energy costs for extraction and processing have led to **supply shortages and increasing prices**.²⁸

Regulation: Rising regulatory demands in the construction sector, especially concerning sustainability and environmental protection, present significant challenges for building materials companies. These requirements often lead to higher compliance costs and force firms to invest in eco-friendly technologies, potentially impacting their financial performance and competitiveness. The EU Taxonomy, for instance, sets detailed criteria for sustainable activities, creating substantial complexity and requiring significant resources for implementation.²⁹ The Netherlands is already a leader in setting standards for low-CO2 cement, with similar discussions gaining traction in countries like France, Germany and Belgium. This trend indicates a **growing push across Europe for stricter sustainability regulations**, which could reshape the industry's landscape.³⁰



Price pressure: According to a study by PwC, **construction prices in Europe could rise by more than 20%** in the coming years due to factors such as moderate demand, rising energy costs and the aforementioned shortage of skilled workers.³¹ These developments will affect the profitability of many companies and jeopardize

²⁶ Randstad, "What are the causes of the global skills shortage?"

²⁷ Statista, "Producer price index for sand and gravel in Germany from 2005 to 2023"

²⁸ Handelsblatt, "Baurohstoffe Kies und Sand bald wohl noch knapper und teurer"

²⁹ BDO, "Die EU Taxonomie und ihre Auswirkungen auf die Bau- und Immobilienbranche"

³⁰ Pissort, Mathie, "Low-CO2 & Recycled Ready-mix Concrete – Road to Adoption"

³¹ PwC, "Die Preise in der Baubranche werden stark anziehen"



High sustainability goals underline the commitment to become a greener company

Heidelberg Materials plans to produce the first net-zero carbon cement by 2025

their competitiveness. At the same time, **increasing competitive pressure** is making itself noticeable, especially in Asia, which is putting pressure on prices as more and more players enter the construction materials market, for example in India and Indonesia, where governments have planned high levels of investments in infrastructure.³²

Currency risks: Heidelberg Materials, with its extensive international footprint, is exposed to currency risks. However, these risks are effectively managed through **hedging strategies**, resulting in a nearly neutral net impact on currency expenses and income (€2m in FY23). Consequently, we assess the company's currency risk as **low**.

ESG

Heidelberg Materials is committed to sustainability through a **comprehensive ESG strategy**, focusing on carbon neutrality and material circularity. The company aims to **reduce specific net Scope 1 CO₂ emissions to 400 kg per tonne** of cementitious material by 2030, aligning with the Science Based Targets initiative's 1.5°C pathway. To achieve net-zero emissions by 2050, HEI is implementing **carbon capture, utilization, and storage (CCUS)** projects across multiple locations, targeting a cumulative CO₂ capture of 10 million tons by 2030. In support of these decarbonization goals, the company plans to increase the use of alternative fuels to 45% by 2030. It has also expanded its low-carbon product offerings under the evoZero® brand, including the first carbon-captured net-zero cement, which is planned to be produced in Brevik, Norway, from H1 2025. These products utilize advanced carbon-reduction technologies and blockchain verification for transparent emissions tracking.

Heidelberg Materials is also committed to **circularity**, aiming for **50% circular alternatives in its concrete products by 2030**. By incorporating recycled materials such as blast furnace slag and fly ash, the company reduces reliance on primary raw materials and promotes resource efficiency through recycling and reuse, contributing to a circular economy. In recognition of its ESG efforts, HEI is **included in several sustainability-focused stock indices**, including the DAX 50 ESG and the FTSE4Good Index.

Socially, the company prioritizes employee safety, diversity, and fair labor practices to foster an inclusive global work culture. Governance practices emphasize transparency and ethical decision-making, with ESG metrics integrated into executive compensation to align leadership incentives with environmental and social performance goals. The Managing and Supervisory Boards oversee these

³² Heidelberg Materials, "Analyst Conference Call – Q3 2024"

ESG initiatives, supporting Heidelberg Materials' mission to operate responsibly and sustainably, reinforcing its commitment to long-term value creation and regulatory compliance.

Valuation

Scenario Analysis

Currently, there is a race in the construction materials sector to be the first company who does produce net-zero cement or concrete. Industry experts believe that there will not be that many net-zero plants before 2030, which will give those players, who are able to manufacture those products, a sustainable premium on the price of those products. Heidelberg Materials assumes in the Q3 2024 Trading Update that they will be the first in the market to offer carbon-captured net-zero cement and concrete in H1 2025. This is an underlying assumption for our scenario analysis. Industry experts assume a price per ton of cement incl. premium of up to €130-€150. Some analysts even expect a tripling of the current cement price.³³ We believe this is too optimistic and assume a **price CAGR of 2.8%** from FY24 to FY32 instead of the previous 2.3%, resulting in a **cement price per ton of €138 by 2033**. We leave all other input factors unchanged to better measure the price effect. This grows at an above-average rate until 2030 and then slowly declines as more sustainable production facilities are expected from this year onwards. This leads to a **share price of €163.62**.

The first scenario leads to a share price of €163.62

As a second scenario, we have calculated **top-down sales based on estimated market growth by region**. However, in our opinion, the market research reports are too positive about the current situation in the industry and the next two years. The second scenario would result in a **share price of €147.19**. Both scenarios highlight significant future upside potential driven by the focus on sustainable products and their price premium. However, we find them imprecise, as sustainable production requires substantial investments, for which reliable cost data is currently unavailable.

The second scenario (based on projected market growth by region) leads to a share price of €147.19

Comparable Company Analysis

Heidelberg Materials is a leading global player in the building materials industry, with a primary focus on cement, concrete, and aggregates. For our core peer group, we have selected competitors that closely align with HEI's product range and share a similar geographical and international footprint. This group includes Cemex, Holcim, and CRH, which are **comparable in size, product portfolio, and**

³³ JPMorgan, "Heidelberg Materials" / Pissoort, Mathieu, "Low-CO2 & Recycled Ready-mix Concrete – Road to Adoption"

global reach. Additionally, we have identified companies like Vicat, Titan Cement and Buzzi, which are also international players but have a stronger focus on Europe, reflecting HEI's home market. To ensure a comprehensive valuation and avoid potential bias, we have established a second peer group comprising companies operating in the same industry and geographical regions but with a less direct competitive relationship to Heidelberg Materials. Given the strong link between the building materials sector – particularly the concrete and cement segments – and the construction industry, we have also included a third reference group of construction companies to capture the broader market dynamics.

We consider the **valuation level for the coming year as balanced without major changes.** On one hand, the increased focus on sustainable products and technology supports higher valuations. However, this is offset by risks in the construction sector, including economic volatility, uncertain demand outlooks and growing margin pressure, particularly in Asia. Considering the core peer group, we arrive at a **median EV/EBITDA of 6.1x** and thus a share price of **€109.56**. **EV/EBIT of 8.3x** results in a slightly lower share price of **€104.43**, while the **EV/Revenue multiple of 1.5x** results in a higher value of **€131.47**. The **P/E multiple of 13.6x** yields a share price of **€110.13**. Both control groups result in a higher EV/EBITDA multiple: **building materials of 9.3x and construction of 8.9x**. This makes sense insofar as the companies in both groups are more diversified and can operate in other, higher-growth segments, which in turn leads to higher multiples. Cement manufacturers are also generally more cyclical as they are less diversified than other construction materials player, which leads to lower multiples. We therefore consider the CCA to be meaningful as a number of good comparative companies exist. Further details can be found in Appendix 3.

Comparable Transaction Analysis

Transaction-based multiples are determined using the prices paid for comparable companies in M&A transactions in recent years. These multiples capture the value that buyers are prepared to offer for a company, incorporating potential **synergies, premiums, and discounts** that may result from the deal. To obtain a realistic valuation, the focus was on transactions in the construction materials industry with a focus on manufacturers of cement and aggregates of the last 3 years, with target companies around the world to reflect the global setup of Heidelberg Materials. To account for the size of HEI, we focused on transactions with a minimum size of €45m. A total of 20 transactions were identified. Notably, the **median EV/EBITDA multiple over the past two years is 8.7x** (with an average deal size of €534m), compared to a **higher median of 10.0x over the last three years** (average deal size: €642m). This indicates not only a decline in valuation multiples but also a decrease in average transaction sizes. These trends

The average of the CCA results leads to a share price of €113.90

The multiple paid for transactions has decreased over the last few years

The CTA analysis reveals a share price of €172.09

highlight the reduced market value of building materials companies, particularly in the cement sector, reflecting the challenging market environment in recent time.

To derive a more accurate valuation, we focus on the **median EV/EBITDA multiple** from the last two years, as it reflects more recent transaction data and is therefore more accurate. The EV/EBITDA multiple, identified as the most meaningful as it was the most frequently multiple reported, results in an **indicated share price of €172.09**. This figure is higher than the CCA valuation, which is justified by the control premium inherent in transactions. We recognize the CTA less relevant for valuation purposes, as the transactions involve significantly smaller companies with less international activity compared to Heidelberg Materials, making them less comparable due to the industry's structure. Please see appendix 4 for further details.

Adjusted Present Value Analysis

The APV analysis results in a share price of €71.74

The Adjusted Present Value (APV) analysis divides the valuation into two components: the present value of the operations of the business as if the business was entirely equity financed (unlevered) and the present value of financing effects and, therefore, the present value of the tax shield³⁴. This valuation methodology is conventionally used, when debt (in absolute terms) can be forecasted with high certainty or remains at the same level. In our case, however, we forecast our debt as a reducing Debt-to-Value ratio, which is why we put less weight on the result of the APV analysis. For the valuation of the operations, the unlevered free cash flows were discounted using an **unlevered cost of capital of 7.11%**. This is based on the unlevered beta of the company's peer group. We assumed the debt to remain at the level of FY 2025 moving forward, allowing for the computation by multiplying the tax rate with the amount of debt. The resulting **share price of this methodology is €71.74**, which we, due to its low relevance, do not consider in our derivation of the target share price.

Leverage Buyout Analysis

The Leverage Buyout (LBO) analysis helps to assess the maximum price a potential financial sponsor can pay for Heidelberg Materials while achieving a satisfactory return on its investment. Therefore, the analysis establishes a baseline valuation in our valuation of the company. Larger transactions often have a lower **Internal Rate of Return (IRR)** due to their perceived lower risk profiles, stemming from factors like stable cash flows and established market position. This is the reason why we use a threshold (IRR) of 15%, which is at the lower end of the industry-typical threshold of 15-20%, as this is usually the typical threshold for an

³⁴ Damodaran, Aswath, "Investment Valuation: Tools and Techniques for Determining the Value of Any Asset"

The LBO analysis suggests a share price of €85.59

acquisition to be deemed attractive.³⁵

For **leverage**, we assume a **multiple of 4.0x**, which we consider as standard for the industry. We calculate with three term loans, where the interest is based on the 6-month EURIBOR rate (as of December 2024) plus a risk-adjusted margin. For better accuracy, we assume a holding period from 2025 to 2033, corresponding to the end of the planning period. An IRR of 15% (and an indicated MoM of 3.1x) results in a **share price** for Heidelberg Materials of **€85.59**, which we consider to be the lower limit of our valuation.

Monte Carlo Simulation

The Monte Carlo Simulation suggests a share price of €146.6 in Dec 2025

Share prices are influenced by numerous random and unpredictable factors, such as market volatility, interest rate changes and geopolitical events. Therefore, we use a Monte Carlo analysis to simulate potential extreme values (e.g. strong price losses or gains) and their probability distributions for future share prices, based on historical price volatility. We simulated the price of Heidelberg Materials shares over a one-year period (assumption: 252 trading days), based on 10,000 simulations using daily closing prices from the past 20 years (since January 1, 2004). We ran the simulation 10,000 times in order to minimize fluctuations in earnings and to achieve robust results. The results indicate a smallest simulated closing price of €35.8 and a highest simulated closing price of €543.6, with an **average closing price of €146.6**. The analysis shows that there is a 59.7% probability of the closing price exceeding the last closing price and a 40.3% probability of it falling below the closing price. These results suggest an upward potential in share price performance, while also reflecting the inherent uncertainties in market dynamics. Graphical evaluations can be found in appendix 5. We consider the simulation as less meaningful as it is fully based on share price development in the past without taken qualitative factors into account.

Recommendation

Based on our analyses, we arrive at a **target price** for Heidelberg Materials of **€126.62**. We weight the DCF analysis with 60%, as the forecast was developed in the greatest detail and most of the relevant information was incorporated here. CCA, CTA, LBO and DDM analysis are each weighted at 10%. In order to compensate for small fluctuations in the valuation level, we indicate the share price with a 10% premium and discount in each analysis. Including an **expected dividend of €3.19** and considering the **current share price of €125.60**, we see an **upside potential of 3.35%**. Our analysis suggests that the market may be assessing the potential of the company correctly. HEI has a very good position in

³⁵ Pearl, Joshua/Rosenbaum, Joshua, "Investment Banking"

the industry and reacts proactively to emerging trends and developments in the sector, but this is clouded by a moderate market outlook for the next few years, various risks and the generally low valuation level in the cyclical construction materials industry. Moreover, due to the very strong performance of the share price YTD, we believe that the focus on sustainability, and therefore a future competitive advantage, is now priced in. Therefore, our final recommendation for the Heidelberg Materials AG stock is **Hold**.

A target share price of €126.62, combined with an expected dividend of €3.19 in 2024, represents a 3.35% upside potential

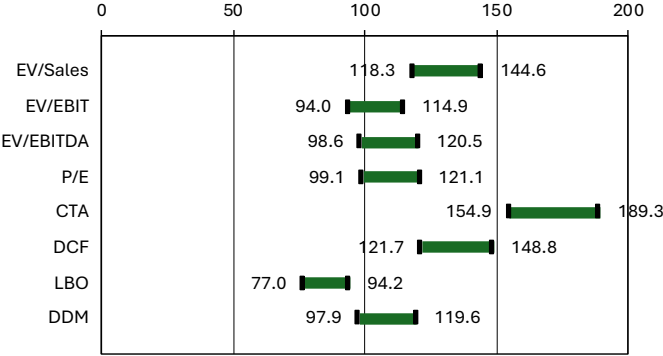


Figure 12: Footballfield of the valuation range

Appendix

Appendix 1: Overview of the managing board

Name	Role	Board member since	Appointed until	Nationality	Birth year
Dr Dominik von Achten	Chairman of the Board	2007	Jan 25	German	1965
René Aldach	Chief Financial Officer & Australia	2021	Aug 29	German	1979
Roberto Callieri	Asia	2024	Dec 26	Italian	1963
Axel Conrads	Chief Technical Officer	2024	Jan 27	German	1975
Hakan Gurdal	Africa-Mediterranean-Western Asia	2016	Jan 29	Turkish	1968
Dr Nicola Kimm	Chief Sustainability & New Technologies Officer	2021	Aug 24	Canadian/ German	1970
Dennis Lentz	Chief Digital Officer	2021	Aug 29	German	1982
Jon Morrish	Europe	2016	Jan 29	British	1970
Chris Ward	North America	2019	Aug 28	American	1972

Appendix 2: Overview of YTD 2024 M&A deals of Heidelberg Materials

Announced Date	Type	Target	Target Country	Description
28.11.24	Acquisition	Giant Cement	USA	US-based manufacturer of cement, concrete and aggregate. Transaction value of €569.85m
30.07.24	Acquisition	Carver Sand & Gravel	USA	Sand & gravel supplier.
16.07.24	Acquisition	Highway Materials	USA	A construction materials company.
16.07.24	Acquisition	Victory Rock	USA	Producer of high-quality aggregates for concrete and asphalt.
15.07.24	Acquisition	Moroni SA	France	Company specialized in the extraction, processing and sale of sand, gravel and construction materials.
01.07.24	Acquisition	Aaron Materials	USA	Concrete recycler and materials producer.
17.05.24	Acquisition	Bristol & Avon Transport & Recycling	UK	Construction soil and aggregate recycling company.
05.04.24	Sale	Hanson Quarry Products Europe	UK	Ready mix concrete and aggregates production, supply and distribution business including three quarries and four concrete plants.
05.04.24	Sale	Mining Assets (Needingworth Quarry)	UK	Mining assets.
29.01.24	Acquisition	Smiths Concrete	UK	Manufacturer of ready-mixed concrete and mortar, the extraction of sand and gravel and the operation of a land-fill site for household and commercial waste.
11.01.24	Sale	Heidelberg Materials (Transport operations)	France	Transport operations in Airvault, France.
11.01.24	Sale	Heidelberg Materials (Transport operations)	France	Transport operations in Beaucaire and Bussac, France.

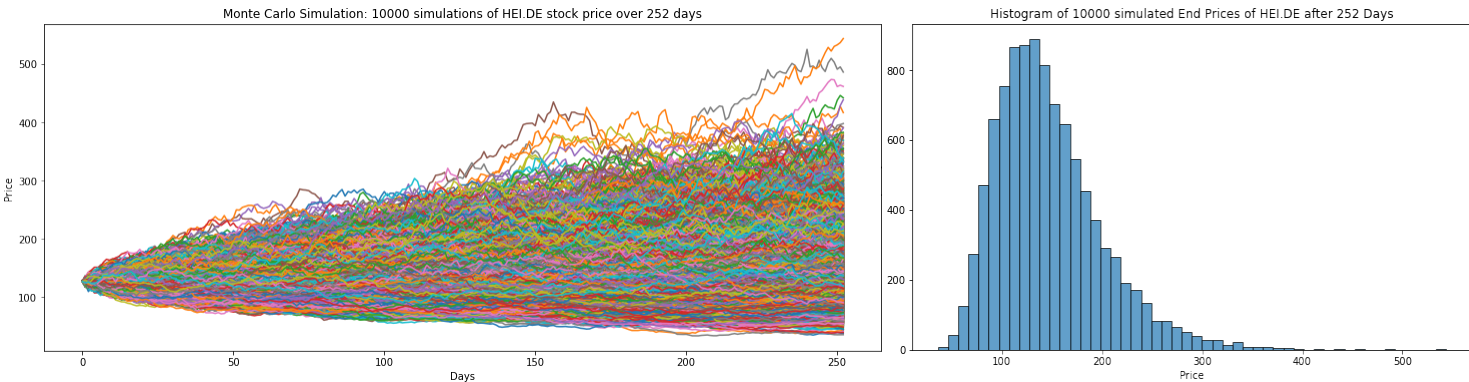
Appendix 3: Overview of the CCA results

<i>in €m</i>	Market Cap	Net Debt	EV	EV/Revenue	EV/EBITDA	EV/EBIT	P/E
Cement producers							
Buzzi S.p.A.	7,056	-537	6,519	1.5x	5.4x	6.7x	7.3x
CEMEX, S.A.B. de C.V.	7,628	6,357	13,985	0.9x	5.1x	7.5x	46.3x
Holcim AG	54,059	11,331	65,390	2.3x	10.3x	14.2x	16.4x
Vicat S.A.	1,624	1,585	3,209	0.8x	4.8x	7.5x	6.3x
CRH plc	63,799	11,233	75,032	2.4x	13.5x	18.5x	22.2x
Titan Cement International S.A.	2,878	669	3,548	1.4x	6.8x	9.1x	10.7x
Average				1.5x	7.7x	10.6x	18.2x
Median				1.5x	6.1x	8.3x	13.6x
Building materials							
James Hardie Industries plc	14,133	765	14,898	4.3x	17.0x	20.8x	30.0x
Compagnie de Saint-Gobain S.A.	44,777	9,443	54,220	1.1x	8.3x	10.7x	16.8x
Kingspan Group plc	12,950	1,757	14,708	1.8x	14.5x	17.5x	20.2x
Sika AG	40,140	6,152	46,292	3.8x	20.4x	24.6x	35.2x
Wienerberger AG	3,033	1,880	4,913	1.2x	7.0x	10.3x	9.1x
Etex N.V.	1,094	1,174	2,268	0.6x	3.2x	4.9x	4.1x
Rockwool A/S	7,329	-455	6,874	1.9x	9.3x	12.9x	18.8x
Imerys S.A.	2,418	1,794	4,212	1.1x	8.4x	15.9x	47.1x
Breedon Group plc	2,878	669	3,548	2.1x	13.1x	20.0x	23.7x
Average				2.0x	11.3x	15.3x	22.8x
Median				1.8x	9.3x	15.9x	20.2x
Construction							
Acciona, S.A.	6,270	8,240	14,510	0.8x	10.2x	20.2x	11.6x
ACS	0	0	0	0.4x	12.9x	19.0x	15.6x
Bouygues SA	0	0	0	0.4x	5.3x	11.3x	10.4x
Vinci SA	0	0	0	1.2x	7.5x	10.4x	12.2x
Skanska AB (publ)	0	0	0	0.6x	16.3x	23.0x	18.5x
Strabag SE	0	0	0	0.2x	3.2x	5.8x	7.7x
Average				0.6x	9.2x	15.0x	12.7x
Median				0.5x	8.9x	15.2x	11.9x

Appendix 4: Overview of the CTA results

Target Company	Country	Buyer Company	Seller Company	Announced Date	EV (€m)	Net Debt (€m)	Implied Equity Value (€m)	EV/Sales	EV/EBIT	EV/EBITDA	Deal Value (€m)	Target Description
Lafarge Africa	Nigeria	Huaxin Cement Co	Holcim	01.12.24	894	-52	946	2.9x	11.4x	9.4x	946	Manufacturer and marketer of cement, aggregates and ready mix concrete.
Summit Materials	USA	Quikrete Holdings	Vanguard, Cementos Argos	25.11.24	11,377	1,954	9,423	3.5x	28.9x	16.2x	11,377	Producer and seller of heavy-side construction materials and related downstream products.
Mannok Holdings DAC (94.7% Stake)	Ireland	Cimsa Cimento	Silver Point Capital	28.08.24	330	n.a.	330	1.1x	n.a.	5.7x	313	Manufacturer of cement, downstream cement products, insulation materials, and recycled plastic packaging products.
Siam City Cement plc (53.66% Stake)	Thailand	Sunrise Equity	Jardine Cycle & Carriage	16.08.24	1,628	385	1,243	1.6x	14.7x	8.6x	1,052	Manufacturer of cement, such as mixed cement and portland cement.
Bamburi Cement plc	Kenya	Amsons Group	Holcim	10.07.24	138	-31	170	1.1x	19.6x	8.7x	170	Cemet manufacturer.
China-Africa Jidong Construction Material	China	Tangshan Jidong Cement Co.	Jidong Development Group, China-Africa Development Fund	27.04.24	65	n.a.	65	n.a.	n.a.	n.a.	65	Cement maker.
CEMEX Holdings Philippines	Philippines	DMCI; Semirara Mining & Power; Dacon	Cemex SAB de CV	25.04.24	691	381	309	2.3x	n.a.	n.m.	691	Manufacturer of cement.
BMC Enterprises	USA	Breedon Group	n.a.	06.03.24	276	n.a.	276	1.7x	n.a.	8.5x	276	Provider of ready-mix concrete manufacturing
CSR	Australia	Compagnie de Saint-Gobain	n.a.	21.02.24	2,698	94	2,605	1.7x	21.4x	15.2x	2,698	Building and construction materials company.
ADBRI Ltd (57.25% Stake)	Australia	CRH; Barro Group	n.a.	18.12.23	1,751	466	1,285	1.6x	30.8x	12.8x	1,202	Manufacturer of cement & lime.
Daiken Corp (63.66% Stake)	Japan	Itochu Corp; BP Investment	n.a.	10.08.23	557	64	493	0.4x	9.0x	5.2x	378	Manufacturer of building materials and construction parts.
Oman Cement (59.58% Stake)	Oman	Huaxin Cement Co	Sultanate of Oman	13.03.23	199	-104	303	1.2x	14.5x	6.2x	180	Cement manufacturing company.
Eagle Cement Corporation	Philippines	San Miguel Corp	Private Individuals; Far East Holdings	04.10.22	1,686	-205	1,892	3.8x	15.4x	12.8x	1,892	Listed Philippines-based company engaged in manufacturing, marketing, sale and distribution of cement
Semen Baturaja PT	Indonesia	PT Semen Indonesia (Persero) Tbk	Republic of Indonesia	30.06.22	404	76	328	3.4x	27.5x	15.5x	404	Listed Indonesia based cement producer
Cembrit Holding	Denmark	Swisspearl Group	Solix Group	21.06.22	594	n.a.	594	2.1x	16.5x	10.6x	594	Denmark-based manufacturer and distributor of fibre-cement products
Ambuja Cements (63.06% Stake)	India	Adani Enterprises	Holcim	15.05.22	8,176	-1,356	9,532	2.3x	14.2x	14.2x	6,011	Cement manufacturer.
Shanxi Huarun Fulong Cements (72% Stake)	China	Tangshan Jidong Cement Co.	China Resources Co	16.12.21	67	n.a.	67	0.9x	4.1x	1.9x	48	China-based cement seller
Calucem doo	Croatia	Cementos Molins	Ambienta SGR	02.08.21	150	n.a.	n.a.	2.6x	n.a.	9.4x	150	Cement manufacturer.
US Concrete Inc	USA	Vulcan Materials Co.	n.a.	07.06.21	1,777	583	1,194	1.6x	28.3x	12.3x	1,777	Producer of ready-mixed concrete and related products.
CHRYSO	France	Compagnie de Saint-Gobain	Cimven	20.05.21	1,020	n.a.	n.a.	2.6x	n.a.	12.0x	1,020	France-based designer and manufacturer of admixtures and additives for concrete, cement and gypsum
Over the last 2 years								1.1x	14.6x	6.1x		
25th percentile								1.7x	18.6x	9.7x	1,612	
Average								1.6x	17.2x	8.7x	534	
Median								1.7x	20.9x	9.7x		
75th percentile												
Over the last 3 years								1.4x	14.3x	8.5x		
25th percentile								2.0x	18.3x	10.3x	1,562	
Average								1.7x	15.9x	10.0x	642	
Median								2.6x	26.0x	12.8x		
75th percentile												

Appendix 5: Results of the Monte Carlo Simulation



Sources

- Accenture. "The Circular Economy Could Unlock \$4.5 trillion of Economic Growth, Finds New Book by Accenture". Retrieved from <https://newsroom.accenture.com/news/2015/the-circular-economy-could-unlock-4-5-trillion-of-economic-growth-finds-new-book-by-accenture> on 1. December 2024
- Asian Development Bank. "Economic Forecasts for Asia and the Pacific: September 2024". Retrieved from <https://www.adb.org/outlook/editions/september-2024#:~:text=Growth%20projections%20are%20higher%20for.%2C%20respectively%2C%20from%20April%27s%20estimates> on 1. December 2024
- Bauindustrie."Fachkräftesituation im Bauhauptgewerbe". Retrieved from <https://www.bauindustrie.de/zahlen-fakten/publikationen/brancheninfo-bau/fachkraeftesituation-im-bauhauptgewerbe> on 1. December 2024
- BDO. "Die EU Taxonomie und ihre Auswirkungen auf die Bau- und Immobilienbranche". Retrieved from <https://www.bdo.de/de-de/insights/aktuelles/advisory-service/die-eu-taxonomie-und-ihre-auswirkungen-auf-die-bau-und-immobilienbranche> on 1. December 2024
- Bidt. "Digitalization index". Retrieved from <https://www.bidt.digital/zahlenmonitor/digitalisierungsindex/> on 7. December 2024
- Damodaran, Aswath. "Investment Valuation: Tools and Techniques for Determining the Value of Any Asset". 3rd ed. Hoboken, NJ: Wiley, 2012
- Damodaran, Aswath. "Valuation Approaches and Metrics: A Survey of the Theory and Evidence". Retrieved from: <https://pages.stern.nyu.edu/~adamodar/pdfiles/papers/valuesurvey.pdf> on 30. November 2024
- European Commission. "Autumn 2024 Economic Forecast: A gradual rebound in an adverse environment". Retrieved from: https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/autumn-2024-economic-forecast-gradual-rebound-adverse-environment_en on 1. December 2024
- European Commission. "Circular Economy Action Plan". Retrieved from https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en on 7. December 2024
- European Commission. "Construction and Demolition Waste". Retrieved from https://environment.ec.europa.eu/topics/waste-and-recycling/construction-and-demolition-waste_en on 7. December 2024
- Eurostat. "Housing in Europe – 2023 edition". Retrieved from <https://ec.europa.eu/eurostat/web/interactive-publications/housing-2023> on 14. Decembr 2024
- Finanzen.net. "November 2024: Das sind die Expertenmeinungen zur Heidelberg Materials-Aktie". Retrieved from https://www.finanzen.net/nachricht/aktien/november-2024-das-sind-die-expertenmeinungen-zur-heidelberg-materials-aktie-14060014?utm_source=chatgpt.com on 14. December 20224
- GlobalData. "Latin America Construction Market Size, Share, Trends, and Analysis". Retrieved from: <https://www.psmarketresearch.com/market-analysis/uae-construction-material-market> on 21. November 2024
- Handelsblatt. "Baurohstoffe Kies und Sand bald wohl noch knapper und teurer". Retrieved from <https://www.handelsblatt.com/finanzen/immobilien/inside-energie-und-immobilien/baumaterialien-baurohstoffe-kies-und-sand-bald-wohl-noch-knapper-und-teurer/28843700.html> on 4. December 2024
- Heidelberg Materials. "Analyst Conference Call – Q3 2024". Retrieved from <https://www.heidelbergmaterials.com/en/investor-relations/financial-calendar/third-quarter-2024-trading-update> on 1. December 2024
- IMF. "World Economic Outlook". Retrieved from: <https://www.imf.org/en/Publications/WEO> on 21. November 2024
- International Monetary Fund. "Asia and Pacific". Retrieved from: <https://www.imf.org/en/Publications/REO/APAC/Issues/2024/10/31/regional-economic-outlook-for-asia-and-pacific-october-2024> on 1. December 2024
- JPMorgan. "Heidelberg Materials". Europe Equity Research as of 2. November 2023. Retrieved from Capital IQ
- KPMG. "Market risk premium as at 30/09/2024". Retrieved from <https://atlas.kpmg.com/de/en/deal-advisory-services/cost-of-capital-and-multiples/market-risk-premium-and-risk-free-rate> on 14. December 2024
- Kunath, Gero. "China's real estate crisis: government sees cracks in the foundations". Retrieved from: <https://www.iwkoeln.de/studien/gero-kunath-regierung-sieht-risse-im-fundament.html> on 2. December 2024
- Manpower Group. "Skills shortage study 2024". Retrieved from https://www.manpowergroup.de/de/insights/studien-und-research/studien/2024/01/08/14/07/mpg-studie-fachkraeftemangel-2024?utm_source=chatgpt.com&referrer=chatgpt.com on 12. December
- Marketresearch.com. "Europe Construction Materials Market Summary". Retrieved from: <https://www.marketresearch.com/MarketLine-v3883/Europe-Construction-Materials-Summary-Competitive-32197938/> on 21. November 2024
- Mercer Capital. "Construction & Building Materials Industry Segments Experience". Retrieved from: <https://mercercapital.com/what-construction-building-materials-industry-segments-do-you-have-experience-in/> on 5. December 2024
- Mutikani, Lucia. "Smaller US trade deficit supports strong economic growth estimates for third quarter". Retrieved from: https://www.reuters.com/markets/us/us-trade-deficit-narrows-sharply-august-2024-10-08/?utm_source=chatgpt.com on 1. December 2024

- Olivares, Fabrizio. "Heidelberg Materials – Strategic Growth & Margin Outlook". Expert Interview from 6. December 2024. Retrieved from ThirdBridge
- P&S Intelligence. "U.A.E. Construction Material Market Size & Share Analysis". Retrieved from: <https://www.psmarketresearch.com/market-analysis/uae-construction-material-market> on 21. November 2024
- Pearl, Joshua/Rosenbaum, Joshua. "Investment Banking". Third Edition (2020)
- Pissort, Mathieu. "Low-CO2 & Recycled Ready-mix Concrete – Road to Adoption". Expert Interview from 15. October 2024. Retrieved from ThirdBridge
- Precedence Research. "Building Materials Market Size". Retrieved from: <https://www.precedenceresearch.com/building-materials-market#:~:text=The%20Asia%20Pacific%20building%20materials,4.2%25%20from%202024%20to%202034> on 21. November 2024
- PwC. "Die Preise in der Baubranche werden stark anziehen". Retrieved from <https://www.pwc.de/de/real-estate/die-preise-in-der-baubranche-werden-stark-anziehen.html> on 4. December 2024
- PwC. "PwC study on the construction industry 2023". Retrieved from <https://www.pwc.de/de/pressemitteilungen/2023/pwc-studie-zur-baubranche-2023-die-digitalisierung-stockt-in-sachen-nachhaltigkeit-geht-es-voran.html> on 9. December 2024
- Randstad. "What are the causes of the global skills shortage?". Retrieved from <https://www.randstad.at/hr-portal/digitalisierung/was-sind-die-ursachen-des-weltweiten-fachkraeftemangels/> on 11. December 2024
- RICS. "Digitalization in Construction". Retrieved from <https://www.rics.org/content/dam/ricsglobal/documents/research/Digitalisation-in-construction-report-2024.pdf> on 9. December 2024
- Room 35. "The Impact: Effects Of COVID19 In The Construction Industry". Retrieved from: <https://roomthirtyfive.com/the-impact-effects-of-covid19-in-the-construction-industry/> on 6. December 2024
- Statista. "Living space per capita in apartments in Germany from 1991 to 2023". Retrieved from <https://de.statista.com/statistik/daten/studie/36495/umfrage/wohnflaeche-je-einwohner-in-deutschland-von-1989-bis-2004/> on 14. December 2024
- Statista. "Producer price index for sand and gravel in Germany from 2005 to 2023". Retrieved from <https://de.statista.com/statistik/daten/studie/1320210/umfrage/erzeugerpreisindex-von-sand-und-kies-in-deutschland/> on 5. December 2024
- StratEdge Analytics. "Construction Materials Market Size". Retrieved from: <https://www.linkedin.com/pulse/construction-materials-market-size-us-1493810-million-zzhye/> on 21. November
- U.S. Department of Commerce. "Commerce Data Show Strong Economic Gains Due to Americans Making and Spending More". Retrieved from <https://www.commerce.gov/news/blog/2024/11/commerce-data-show-strong-economic-gains-due-americans-making-and-spending-more#:~:text=The%20U.S.%20economy%20grew%202.7.reflected%20increases%20in%20consumer%20spending> on 1. December 2024
- Visual Capitalist. "Ranked: The Most Carbon-Intensive Sectors in the World". Retrieved from <https://www.visualcapitalist.com/the-most-carbon-intensive-sectors-in-the-world/> on 2. December 2024

Financial Statements

Balance Sheet Forecast <i>in €m</i>	FY 2017 Act	FY 2018 Act	FY 2019 Act	FY 2020 Act	FY 2021 Act	FY 2022 Act	FY 2023 Act	FY 2024 FC	FY 2025 FC	FY 2026 FC	FY 2027 FC	FY 2028 FC	FY 2029 FC	FY 2030 FC	FY 2031 FC	FY 2032 FC	FY 2033 FC
Non current assets																	
Goodwill	11,106.6	11,450.2	11,782.6	8,588.8	8,164.7	8,368.1	8,341.7	8,673.5	8,947.0	9,229.3	9,520.4	9,820.7	10,130.4	10,450.0	10,779.6	11,119.6	11,470.4
Other intangible assets	364.5	370.3	372.5	361.2	206.9	209.3	342.9	285.0	295.0	304.3	313.9	323.8	334.0	344.5	355.4	366.6	378.2
Intangible assets	11,471.1	11,820.5	12,155.1	8,950.0	8,371.6	8,577.4	8,684.6	8,958.5	9,242.0	9,533.5	9,834.3	10,144.4	10,464.4	10,794.5	11,135.0	11,486.2	11,848.5
Land and buildings	6,313.0	6,519.2	7,137.1	6,500.7	6,866.8	6,763.6	7,131.2	7,204.9	7,365.5	7,562.9	7,792.5	8,048.5	8,312.9	8,586.1	8,868.2	9,159.5	9,460.5
Plant and machinery	5,049.8	4,980.2	5,296.9	4,616.3	4,511.6	4,354.0	4,988.2	4,974.5	5,085.4	5,221.7	5,380.2	5,557.0	5,739.6	5,928.1	6,122.9	6,324.1	6,531.9
Other operating equipment	338.8	325.1	959.0	860.9	869.7	841.0	858.8	919.5	940.1	965.2	994.5	1,027.2	1,061.0	1,095.8	1,131.8	1,169.0	1,207.4
Prepayments and assets under constru	1,112.2	1,137.1	1,136.1	835.2	1,382.7	1,701.9	1,171.4	1,302.4	1,331.5	1,367.1	1,408.6	1,454.9	1,502.7	1,552.1	1,603.1	1,655.8	1,710.2
Property, plant and equipment	12,813.8	12,961.6	14,529.1	12,813.1	13,630.8	13,660.5	14,149.6	14,401.4	14,722.5	15,117.0	15,575.8	16,087.6	16,612.2	17,162.1	17,726.0	18,308.4	18,910.0
Investments in joint ventures	1,334.1	1,200.8	1,223.7	1,230.8	1,281.1	1,743.2	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4
Investments in associates	502.4	512.2	537.1	540.5	583.5	688.3	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
Financial investments	256.1	252.5	213.5	78.2	148.7	87.5	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
Loans	88.5	141.4	122.8	103.3	92.9	156.2	197.0	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4
Derivative financial instruments	-	-	31.1	39.6	16.6	40.3	6.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9
Deferred taxes	517.9	314.4	313.3	343.2	262.9	268.2	295.5	463.8	477.2	487.7	493.6	518.3	546.3	581.9	608.7	630.4	652.2
Other non-current receivables and asset	829.0	1,026.6	1,044.8	898.9	1,151.2	888.6	840.0	964.7	964.7	964.7	964.7	964.7	964.7	964.7	964.7	964.7	964.7
Non-current income tax assets	52.4	61.9	61.9	25.6	29.0	26.7	22.5	29.1	30.0	30.6	31.0	32.5	34.3	36.5	38.2	39.6	40.9
Total non-current assets	27,865.3	28,291.9	30,232.4	25,023.2	25,568.3	26,136.9	26,649.1	27,431.8	28,050.7	28,747.8	29,513.7	30,362.0	31,240.3	32,154.1	33,086.9	34,043.6	35,030.6
Current assets																	
Raw materials and consumables	823.4	920.4	970.9	882.5	1,112.1	1,330.9	1,273.7	1,272.0	1,289.7	1,295.9	1,342.6	1,412.0	1,491.2	1,575.9	1,652.3	1,725.3	1,797.7
Work in progress	308.7	336.2	346.3	295.1	261.6	380.6	378.3	382.2	391.9	392.3	404.8	424.1	446.1	469.5	490.3	509.9	529.1
Finished goods and goods for resale	733.3	767.9	861.7	784.5	819.7	931.4	989.6	984.4	994.3	998.5	1,034.0	1,086.9	1,147.3	1,211.9	1,269.9	1,325.4	1,380.3
Prepayments	15.3	10.3	20.0	9.3	18.1	26.2	28.7	28.2	28.1	28.3	29.3	30.9	32.7	34.6	36.3	38.0	39.7
Inventories	1,880.7	2,034.8	2,198.9	1,971.4	2,211.5	2,669.1	2,670.3	2,666.8	2,704.1	2,714.9	2,810.8	2,953.9	3,117.2	3,291.9	3,448.9	3,598.6	3,746.7
Current interest-bearing receivables	122.1	122.0	107.6	85.9	76.4	98.5	143.9	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5
Trade receivables	1,797.7	1,808.8	1,746.1	1,562.4	1,837.3	2,040.0	2,005.2	1,971.7	1,957.1	1,961.4	2,027.0	2,126.4	2,240.0	2,361.3	2,469.4	2,572.0	2,673.1
Other current receivables and assets	546.2	741.3	629.3	597.8	534.5	602.1	606.9	613.0	619.1	625.3	631.5	637.9	644.2	650.7	657.2	663.8	670.4
Current income tax assets	117.7	92.2	71.6	80.6	147.5	121.9	53.9	135.9	139.8	142.9	144.6	151.8	160.0	170.5	178.3	184.7	191.0
Current financial investments	10.3	10.0	10.0	-	-	-	12.3	13.0	13.8	14.6	15.4	16.2	17.0	17.8	18.6	19.4	20.2
Current derivative financial instruments	9.6	17.3	34.8	114.4	95.2	83.3	39.9	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5
Cash and cash equivalents	2,108.6	2,585.9	3,541.5	2,857.2	3,115.1	1,454.1	3,266.5	4,049.4	5,104.8	6,437.5	7,258.8	8,206.0	9,323.0	11,270.8	12,534.4	13,765.2	15,014.4
Total current assets	6,592.9	7,412.3	8,339.8	7,269.7	8,017.5	7,069.0	8,798.9	9,625.8	10,714.7	12,072.5	13,064.1	14,268.0	15,677.4	17,938.9	19,482.7	20,979.6	22,491.8
Assets held for sale	99.7	79.2	16.3	42.5	125.4	49.6	23.3	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
Balance sheet total	34,557.9	35,783.4	38,588.5	32,335.4	33,711.2	33,255.5	35,471.3	37,109.0	38,816.8	40,871.7	42,629.2	44,681.4	46,969.1	50,144.4	52,621.1	55,074.7	57,573.9
Equity																	
Subscribed share capital	595.2	595.2	595.2	595.2	595.2	579.3	558.6	584.7	584.7	584.7	584.7	584.7	584.7	584.7	584.7	584.7	584.7
Share premium	6,225.4	6,225.4	6,225.4	6,225.4	6,225.4	6,241.4	6,262.1	6,235.9	6,235.9	6,235.9	6,235.9	6,235.9	6,235.9	6,235.9	6,235.9	6,235.9	6,235.9
Retained earnings	9,494.8	10,256.6	10,988.3	8,527.8	10,015.7	10,809.1	11,854.0	13,183.8	14,455.5	15,705.1	16,919.9	18,197.1	19,544.8	20,982.2	22,487.1	24,046.7	25,661.2
Other components of equity	(1,822.4)	(1,647.7)	(821.8)	(2,077.7)	(1,049.4)	(741.9)	(1,135.5)	(1,165.3)	(1,234.0)	(1,065.2)	(1,068.4)	(1,133.7)	(1,133.3)	(1,126.9)	(1,105.5)	(1,113.5)	(1,122.6)
Treasury shares	-	-	-	(349.8)	(350.0)	(298.0)	(400.0)	(400.0)	(400.0)	(400.0)	(500.0)	(500.0)	(500.0)	(500.0)	(500.0)	(500.0)	(500.0)
Total shareholders' equity of Heidelber	14,493.0	15,429.5	16,987.1	13,270.7	15,437.1	16,537.9	17,241.2	18,439.2	19,642.2	21,060.6	22,172.2	23,384.1	24,732.1	26,675.9	28,202.3	29,753.8	31,359.3
Non-controlling interests	1,494.3	1,392.0	1,517.2	1,277.6	1,222.3	1,086.3	1,133.5	1,194.7	1,257.6	1,322.3	1,387.5	1,456.2	1,528.7	1,605.9	1,686.8	1,770.7	1,857.5
Total equity	15,987.3	16,821.5	18,504.3	14,548.3	16,659.4	17,624.2	18,374.7	19,633.9	20,899.8	22,382.8	23,559.7	24,840.3	26,260.8	28,281.8	29,889.1	31,524.5	33,216.7
Non-current liabilities																	
Bonds payable	8,345.9	8,805.1	7,706.5	7,131.5	5,363.6	5,269.4	5,389.9	6,035.3	6,296.1	6,605.4	6,808.1	7,025.6	7,266.1	7,651.7	7,903.0	8,141.9	8,375.0
Bank loans	459.4	631.3	705.9	660.2	262.4	62.6	46.6	93.2	97.2	102.0	105.1	108.5	112.2	118.1	122.0	125.7	129.3
Other non-current financial liabilities	57.1	51.4	1,064.7	924.0	906.8	1,001.0	1,022.9	988.0	1,030.7	1,081.4	1,114.5	1,150.2	1,189.5	1,252.7	1,293.8	1,332.9	1,371.1
Non-controlling interests with put option	18.5	21.1	25.0	25.8	-	-	-	-	-	-	-	-	-	-	-	-	-
Pension provisions	1,136.8	1,100.6	1,141.7	1,027.4	908.1	639.1	666.6	846.6	883.2	926.6	955.0	985.5	1,019.3	1,073.4	1,108.6	1,142.1	1,174.8
Deferred taxes	649.7	722.8	726.3	584.6	832.1	886.3	948.5	933.6	960.7	981.6	993.5	1,043.4	1,099.7	1,171.3	1,225.3	1,268.9	1,312.8
Other non-current provisions	1,204.0	1,053.5	1,034.7	1,152.0	1,503.0	1,364.5	1,370.9	1,351.9	1,345.8	1,352.7	1,402.1	1,475.1	1,558.5	1,647.7	1,728.3	1,805.4	1,882.0
Other non-current operating liabilities	229.9	249.7	233.4	221.4	50.6	53.6	70.3	69.2	68.9	69.3	71.8	75.6	79.8	84.4	88.5	92.5	96.4
Non-current income tax liabilities	173.5	61.3	54.6	181.9	178.6	208.8	196.5	181.1	186.3	190.4	192.7	202.4	213.3	227.2	237.7	246.1	254.7
Total non-current liabilities	12,274.8	12,696.8	12,692.8	11,908.8	10,005.2	9,485.3	9,712.2	10,498.9	10,868.9	11,309.4	11,642.8	12,066.2	12,538.4	13,226.5	13,707.2	14,155.6	14,596.0
Current liabilities																	
Bonds payable (current portion)	1,668.4	1,134.6	1,930.2	577.0	806.3	52.5	1,471.6	870.3	801.0	895.2	903.6	1,103.1	1,012.5	1,058.7	1,111.1	1,153.0	1,200.9
Bank loans (current portion)	116.0	115.1	173.7	181.9	474.0	258.6	243.7	487.3	508.3	533.3	549.7	567.2	586.7	617.8	638.1	657.4	676.2
Other current financial liabilities	111.0	159.8	383.1	353.3	413.2	465.8	444.7	413.4	440.1	469.2	481.4	492.5	509.0	538.3	556.7	572.6	588.4
Non-controlling interests with put option	47.7	62.3	38.7	50.3	-	-	-	-	-	-	-	-	-	-	-	-	-
Pension provisions (current portion)	82.6	97.7	96.7	92.2	90.5	95.5	97.2	95.8	100.0	104.9	108.1	111.5	115.4	121.5	125.5	129.3	133.0
Other current provisions	250.0	255.2	273.3	226.9	322.3	276.2	313.1	302.7	301.4	302.9	314.0						

Reformulated Balance Sheet in €m, as of December 31st	FY 2017 Act	FY 2018 Act	FY 2019 Act	FY 2020 Act	FY 2021 Act	FY 2022 Act	FY 2023 Act	FY 2024 FC	FY 2025 FC	FY 2026 FC	FY 2027 FC	FY 2028 FC	FY 2029 FC	FY 2030 FC	FY 2031 FC	FY 2032 FC	FY 2033 FC
Goodwill	11,106.6	11,450.2	11,782.6	8,588.8	8,164.7	8,368.1	8,341.7	8,673.5	8,947.0	9,229.3	9,520.4	9,820.7	10,130.4	10,450.0	10,779.6	11,119.6	11,470.4
Other intangible assets	364.5	370.3	372.5	361.2	206.9	209.3	342.9	285.0	295.0	304.3	313.9	323.8	334.0	344.5	355.4	366.6	378.2
Land and buildings	6,313.0	6,519.2	7,137.1	6,500.7	6,866.8	6,763.6	7,131.2	7,204.9	7,365.5	7,562.9	7,792.5	8,048.5	8,312.9	8,586.1	8,868.2	9,159.5	9,460.5
Plant and machinery	5,049.8	4,980.2	5,296.9	4,616.3	4,511.6	4,354.0	4,988.2	4,974.5	5,085.4	5,221.7	5,380.2	5,557.0	5,739.6	5,928.1	6,122.9	6,324.1	6,531.9
Other operating equipment	338.8	325.1	959.0	860.9	869.7	841.0	858.8	919.5	940.1	965.2	994.5	1,027.2	1,061.0	1,095.8	1,131.8	1,169.0	1,207.4
Prepayments and assets under construc	1,112.2	1,137.1	1,136.1	835.2	1,382.7	1,701.9	1,171.4	1,302.4	1,331.5	1,367.1	1,408.6	1,454.9	1,502.7	1,552.1	1,603.1	1,655.8	1,710.2
Deferred tax assets, net	(775.0)	(895.6)	(893.7)	(641.0)	(812.1)	(884.9)	(980.0)	(705.0)	(725.5)	(741.3)	(750.3)	(788.0)	(830.5)	(884.6)	(925.3)	(958.3)	(991.4)
Other receivables and assets, current &	358.7	476.7	392.3	341.7	233.9	645.4	652.7	711.7	714.5	717.2	720.1	722.9	725.8	728.7	731.6	734.6	737.6
Income tax assets, net, current & non-cu	(238.6)	(165.4)	(192.6)	(316.2)	(194.9)	(285.3)	(344.6)	(305.8)	(314.7)	(321.6)	(325.5)	(341.8)	(360.2)	(383.7)	(401.4)	(415.7)	(430.1)
Raw materials and consumables	823.4	920.4	970.9	882.5	1,112.1	1,330.9	1,273.7	1,272.0	1,289.7	1,295.9	1,342.6	1,412.0	1,491.2	1,575.9	1,652.3	1,725.3	1,797.7
Work in progress	308.7	336.2	346.3	295.1	261.6	380.6	378.3	382.2	391.9	392.3	404.8	424.1	446.1	469.5	490.3	509.9	529.1
Finished goods and goods for resale	733.3	767.9	861.7	784.5	819.7	931.4	989.6	984.4	994.3	998.5	1,034.0	1,086.9	1,147.3	1,211.9	1,269.9	1,325.4	1,380.3
Prepayments	15.3	10.3	20.0	9.3	18.1	26.2	28.7	28.2	28.1	28.3	29.3	30.9	32.7	34.6	36.3	38.0	39.7
Trade receivables	1,797.7	1,808.8	1,746.1	1,562.4	1,837.3	2,040.0	2,005.2	1,971.7	1,957.1	1,961.4	2,027.0	2,126.4	2,240.0	2,361.3	2,469.4	2,572.0	2,673.1
Operating cash and cash equivalents	865.7	907.6	947.0	878.2	940.3	1,069.6	1,065.4	1,049.4	1,044.6	1,050.0	1,088.3	1,145.0	1,209.7	1,279.0	1,341.5	1,401.4	1,460.8
Other provisions, current & non-current	(731.8)	(725.5)	(796.8)	(838.0)	(1,193.0)	(1,099.9)	(1,183.4)	(1,162.8)	(1,157.5)	(1,163.4)	(1,205.9)	(1,268.7)	(1,340.4)	(1,417.2)	(1,486.5)	(1,552.8)	(1,618.7)
Other operating liabilities, current & non-	(1,720.9)	(1,815.2)	(1,766.5)	(1,749.3)	(1,592.5)	(1,482.6)	(1,501.2)	(1,478.7)	(1,472.0)	(1,479.6)	(1,533.6)	(1,613.4)	(1,704.6)	(1,802.2)	(1,890.4)	(1,974.8)	(2,058.5)
Trade payables	(2,281.1)	(2,605.3)	(2,690.0)	(2,611.0)	(3,180.4)	(3,343.1)	(3,156.5)	(3,098.4)	(3,088.9)	(3,109.4)	(3,227.6)	(3,400.7)	(3,598.2)	(3,809.8)	(4,002.0)	(4,186.7)	(4,370.5)
Core invested capital	23,440.3	23,803.0	25,628.9	20,361.3	20,252.5	21,566.2	22,062.1	23,008.7	23,626.1	24,278.8	25,013.5	25,767.6	26,539.3	27,320.0	28,146.9	29,013.0	29,907.5
Other receivables and assets, current &	1,016.5	1,291.2	1,281.8	1,155.0	1,451.8	845.3	794.2	866.0	869.3	872.7	876.2	879.6	883.1	886.7	890.2	893.9	897.5
Investments in joint ventures	1,334.1	1,200.8	1,223.7	1,230.8	1,281.1	1,743.2	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4
Investments in associates	502.4	512.2	537.1	540.5	583.5	688.3	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
Financial investments, current & non-cu	266.4	262.5	223.5	78.2	148.7	87.5	107.9	108.6	109.4	110.2	111.0	111.8	112.6	113.4	114.2	115.0	115.8
Derivative financial instruments, current	9.6	17.3	65.9	154.0	111.8	123.6	46.8	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4
Deferred tax assets, net	643.2	487.2	480.6	399.5	242.9	267.1	327.0	235.3	242.1	247.4	250.4	262.9	277.1	295.2	308.8	319.8	330.8
Assets held for sale, net	86.8	68.0	14.9	25.4	100.5	49.3	21.1	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2
Other provisions, current & non-current	(722.2)	(583.1)	(511.1)	(540.9)	(632.3)	(540.8)	(500.6)	(491.9)	(489.6)	(492.2)	(510.1)	(536.7)	(567.0)	(599.5)	(628.8)	(656.9)	(684.7)
Non-core invested capital	3,136.8	3,256.1	3,316.4	3,042.5	3,288.0	3,263.5	3,153.8	3,218.1	3,231.2	3,238.2	3,227.4	3,217.7	3,205.9	3,195.8	3,184.4	3,171.8	3,159.5
Loans	88.5	141.4	122.8	103.3	92.9	156.2	197.0	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4
Current interest-bearing receivables	122.1	122.0	107.6	85.9	76.4	98.5	143.9	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5
Excess cash and cash equivalents	1,242.9	1,678.3	2,594.5	1,979.0	2,174.8	384.5	2,201.2	3,000.1	4,060.2	5,387.5	6,170.5	7,061.0	8,113.3	9,991.8	11,192.8	12,363.8	13,553.6
Bonds payable	(10,014.3)	(9,939.7)	(9,636.7)	(7,708.5)	(6,169.9)	(5,321.9)	(6,861.5)	(6,905.6)	(7,204.0)	(7,558.0)	(7,789.9)	(8,038.8)	(8,314.0)	(8,755.1)	(9,042.7)	(9,316.0)	(9,582.8)
Bank loans	(575.4)	(746.4)	(879.6)	(842.1)	(736.4)	(321.2)	(290.3)	(580.5)	(605.6)	(635.3)	(654.8)	(675.7)	(698.9)	(735.9)	(760.1)	(783.1)	(805.5)
Other financial liabilities, current & non-i	(168.1)	(211.2)	(1,447.8)	(1,277.3)	(1,320.0)	(1,466.8)	(1,467.6)	(1,401.4)	(1,461.9)	(1,533.8)	(1,580.8)	(1,631.3)	(1,687.2)	(1,776.7)	(1,835.1)	(1,890.5)	(1,944.7)
Non-controlling interests with put option:	(66.2)	(83.4)	(63.7)	(76.1)	-	-	-	-	-	-	-	-	-	-	-	-	-
Pension provisions, current & non-curren	(1,219.4)	(1,198.3)	(1,238.4)	(1,119.6)	(998.6)	(734.6)	(763.8)	(942.4)	(983.1)	(1,031.5)	(1,063.1)	(1,097.1)	(1,134.6)	(1,194.8)	(1,234.1)	(1,271.4)	(1,307.8)
Non-controlling interests	(1,494.3)	(1,392.0)	(1,517.2)	(1,277.6)	(1,222.3)	(1,086.3)	(1,133.5)	(1,194.7)	(1,257.6)	(1,322.3)	(1,387.5)	(1,456.2)	(1,528.7)	(1,605.9)	(1,686.8)	(1,770.7)	(1,857.5)
Net financial assets	(12,084.2)	(11,629.3)	(11,958.5)	(10,133.0)	(8,103.1)	(8,291.6)	(7,974.7)	(7,787.6)	(7,215.2)	(6,456.4)	(6,068.8)	(5,601.2)	(5,013.1)	(3,839.8)	(3,129.1)	(2,431.0)	(1,707.7)
Total shareholders equity	14,492.9	15,429.8	16,986.8	13,270.8	15,437.4	16,538.1	17,241.2	18,439.2	19,642.2	21,060.6	22,172.2	23,384.1	24,732.1	26,675.9	28,202.3	29,753.8	31,359.3

Income Statement Forecast	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
	Act	Act	Act	Act	Act	Act	Act	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
Revenue	17,266.1	18,074.6	18,851.3	17,605.9	18,719.9	21,095.1	21,177.6	20,884.0	20,789.5	20,896.4	21,658.9	22,787.1	24,075.0	25,453.6	26,698.6	27,890.2	29,072.4
Change in finished goods and work in pro	38.2	57.6	67.0	(55.6)	66.8	274.4	100.6	80.9	80.5	81.0	83.9	88.3	93.3	98.6	103.4	108.1	112.6
Own work capitalised	9.7	19.9	21.0	14.4	20.0	21.9	28.8	22.5	22.4	22.6	23.4	24.6	26.0	27.5	28.8	30.1	31.4
Operating revenue	17,314.0	18,152.1	18,939.3	17,564.7	18,806.7	21,391.4	21,307.0	20,987.5	20,892.5	20,999.9	21,766.2	22,900.0	24,194.3	25,579.7	26,830.9	28,028.4	29,216.4
Other operating income	632.7	523.7	431.3	379.5	517.7	623.8	561.6	532.2	529.8	532.5	552.0	580.7	613.5	648.7	680.4	710.8	740.9
Material costs	(6,781.6)	(7,478.1)	(7,586.1)	(6,482.9)	(7,305.4)	(8,961.3)	(8,160.1)	(8,008.6)	(7,982.7)	(8,034.2)	(8,338.2)	(8,783.9)	(9,292.4)	(9,837.3)	(10,331.8)	(10,806.8)	(11,279.4)
Personnel costs	(2,989.7)	(3,031.7)	(3,187.4)	(3,025.4)	(3,108.0)	(3,216.7)	(3,414.8)	(3,357.5)	(3,352.6)	(3,380.3)	(3,514.5)	(3,709.0)	(3,930.6)	(4,168.5)	(4,385.7)	(4,595.4)	(4,804.7)
Other operating expenses	(5,082.4)	(5,295.3)	(5,306.6)	(5,007.5)	(5,392.5)	(6,359.6)	(6,269.3)	(6,155.3)	(6,137.8)	(6,179.8)	(6,416.2)	(6,761.8)	(7,156.0)	(7,578.5)	(7,962.5)	(8,331.8)	(8,699.5)
Result from equity accounted investor	204.3	203.5	289.6	278.5	356.1	261.8	233.7	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9
Result from current operations before c	3,297.3	3,074.2	3,580.1	3,706.9	3,874.6	3,739.4	4,258.1	4,282.4	4,233.1	4,222.0	4,333.3	4,510.0	4,712.7	4,928.2	5,115.3	5,289.1	5,457.6
Depreciation and amortisation	(1,109.0)	(1,090.5)	(1,394.0)	(1,343.9)	(1,260.5)	(1,263.9)	(1,235.6)	(1,250.5)	(1,244.6)	(1,243.3)	(1,260.8)	(1,299.1)	(1,341.8)	(1,385.8)	(1,431.2)	(1,478.2)	(1,526.7)
Result from current operations	2,188.3	1,983.7	2,186.1	2,363.0	2,614.1	2,475.5	3,022.5	3,031.9	2,988.5	2,978.7	3,072.4	3,210.9	3,371.0	3,542.4	3,684.1	3,810.9	3,931.0
Additional ordinary income	98.4	240.2	164.7	27.4	775.1	124.9	164.8	125.3	219.8	246.9	172.4	174.7	173.0	203.6	199.0	187.4	183.5
Additional ordinary expenses	(231.3)	(131.8)	(342.9)	(3,705.5)	(294.0)	(318.1)	(163.9)	(123.3)	(123.3)	(123.3)	(123.3)	(123.3)	(123.3)	(123.3)	(123.3)	(123.3)	(123.3)
Additional ordinary result	(132.9)	108.4	(178.2)	(3,678.1)	481.1	(193.2)	0.9	2.0	96.5	123.6	49.1	51.4	49.7	80.3	75.7	64.1	60.2
Earnings before interest and taxes (EBI)	2,055.4	2,092.1	2,007.9	(1,315.1)	3,095.2	2,282.3	3,023.4	3,033.9	3,085.0	3,102.3	3,121.5	3,262.2	3,420.7	3,622.7	3,759.7	3,875.0	3,991.2
Interest income	56.6	49.1	52.0	40.1	29.1	31.7	74.7	76.3	80.9	85.9	112.5	128.1	146.0	167.0	204.6	228.6	252.0
Interest expenses	(362.0)	(320.8)	(316.9)	(233.0)	(220.8)	(151.2)	(206.8)	(281.5)	(245.7)	(205.1)	(215.2)	(221.8)	(228.9)	(236.7)	(249.3)	(257.4)	(265.2)
Foreign exchange gains and losses	(12.5)	1.4	(6.8)	(11.7)	9.8	(98.7)	(24.7)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)
Result from other participations	51.3	39.3	(15.2)	16.9	28.9	12.6	5.8	19.9	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
Other financial result	(100.4)	(96.4)	(88.2)	(99.9)	(48.3)	140.3	(23.3)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)
Financial result	(367.0)	(327.4)	(375.1)	(287.6)	(201.3)	(65.3)	(174.3)	(229.6)	(199.4)	(153.7)	(137.2)	(128.2)	(117.4)	(104.2)	(79.2)	(63.4)	(47.7)
Profit before tax from continuing operat	1,688.4	1,764.7	1,632.8	(1,602.7)	2,893.9	2,217.0	2,849.1	2,804.3	2,885.6	2,948.6	2,984.3	3,134.1	3,303.3	3,518.5	3,680.5	3,811.6	3,943.4
Income taxes	(579.5)	(464.1)	(358.4)	(334.5)	(946.7)	(485.0)	(658.6)	(698.6)	(718.9)	(734.6)	(743.5)	(780.8)	(823.0)	(876.6)	(916.9)	(949.6)	(982.4)
Net income from continuing operations	1,108.9	1,300.6	1,274.4	(1,937.2)	1,947.2	1,732.0	2,190.5	2,105.6	2,166.7	2,214.0	2,240.8	2,353.3	2,480.3	2,641.9	2,763.6	2,862.0	2,961.0
Net loss from discontinued operations	(50.8)	(14.2)	(32.4)	(72.3)	(45.5)	(9.1)	(103.5)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)
Profit for the financial year	1,058.1	1,286.4	1,242.0	(2,009.5)	1,901.7	1,722.9	2,087.0	2,053.1	2,114.2	2,161.4	2,188.2	2,300.7	2,427.7	2,599.3	2,711.0	2,809.4	2,908.4
Thereof attributable to non-controlling in	140.5	143.2	151.3	130.0	142.8	126.4	157.9	153.4	157.7	162.1	163.6	172.0	181.7	193.6	202.8	210.2	217.5
Thereof attributable to Heidelberg Matr	917.6	1,143.2	1,090.7	(2,139.5)	1,758.9	1,596.5	1,929	1,900	1,956	1,999.4	2,024.7	2,128.7	2,246.1	2,395.7	2,508.2	2,599.3	2,690.9
For information:																	
Gross profit	10,532.4	10,674.0	11,353.2	11,081.8	11,501.3	12,430.1	13,146.9	12,978.9	12,909.8	12,965.7	13,428.0	14,116.1	14,901.9	15,742.5	16,499.1	17,221.6	17,937.0
Gross margin in %	60.8%	58.8%	59.9%	63.1%	61.2%	58.1%	61.7%	61.8%	61.8%	61.7%	61.7%	61.6%	61.6%	61.5%	61.5%	61.4%	61.4%
EBITDA	3,164.4	3,182.6	3,401.9	28.8	4,355.7	3,546.2	4,259.0	4,284.4	4,329.5	4,345.6	4,382.3	4,561.4	4,762.5	5,008.5	5,190.9	5,353.2	5,517.8
in % of sales	18.3%	17.5%	18.0%	0.2%	23.2%	16.6%	20.0%	20.4%	20.7%	20.7%	20.1%	19.9%	19.7%	19.6%	19.3%	19.1%	18.9%
EBIT	2,055.4	2,092.1	2,007.9	(1,315.1)	3,095.2	2,282.3	3,023.4	3,033.9	3,085.0	3,102.3	3,121.5	3,262.2	3,420.7	3,622.7	3,759.7	3,875.0	3,991.2
in % of sales	11.9%	11.5%	10.6%	-7.5%	16.5%	10.7%	14.2%	14.5%	14.8%	14.3%	14.2%	14.1%	14.2%	14.0%	13.8%	13.7%	13.7%
Other comprehensive income	-2,258.6	272.4	808.5	-1,564.6	1,285.2	249.7	-544.0	-250.2	-250.2	-250.2	-250.2	-250.2	-250.2	-250.2	-250.2	-250.2	-250.2
Reformulated Consolidated Income Str																	
in €m	Act	Act	Act	Act	Act	Act	Act	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
Revenue	17,266.1	18,074.6	18,851.3	17,605.9	18,719.9	21,095.1	21,177.6	20,884.0	20,789.5	20,896.4	21,658.9	22,787.1	24,075.0	25,453.6	26,698.6	27,890.2	29,072.4
Change in finished goods and work in pro	38.2	57.6	67.0	(55.6)	66.8	274.4	100.6	80.9	80.5	81.0	83.9	88.3	93.3	98.6	103.4	108.1	112.6
Own work capitalised	9.7	19.9	21.0	14.4	20.0	21.9	28.8	22.5	22.4	22.6	23.4	24.6	26.0	27.5	28.8	30.1	31.4
Operating revenue	17,314.0	18,152.1	18,939.3	17,564.7	18,806.7	21,391.4	21,307.0	20,987.5	20,892.5	20,999.9	21,766.2	22,900.0	24,194.3	25,579.7	26,830.9	28,028.4	29,216.4
Material costs	(6,781.6)	(7,478.1)	(7,586.1)	(6,482.9)	(7,305.4)	(8,961.3)	(8,160.1)	(8,008.6)	(7,982.7)	(8,034.2)	(8,338.2)	(8,783.9)	(9,292.4)	(9,837.3)	(10,331.8)	(10,806.8)	(11,279.4)
Personnel costs	(2,801.8)	(2,816.0)	(2,975.1)	(2,822.9)	(2,908.8)	(3,011.1)	(3,198.9)	(3,154.9)	(3,150.4)	(3,176.4)	(3,302.5)	(3,485.2)	(3,693.5)	(3,917.0)	(4,121.1)	(4,318.2)	(4,514.9)
Other operating expenses	(5,044.4)	(5,243.5)	(5,243.5)	(4,939.1)	(5,353.5)	(6,205.8)	(6,129.5)	(6,087.7)	(6,070.4)	(6,112.0)	(6,345.7)	(6,687.5)	(7,077.4)	(7,495.3)	(7,875.1)	(8,240.4)	(8,604.0)
Depreciation and amortization	(1,109.0)	(1,090.5)	(1,394.0)	(1,343.9)	(1,260.5)	(1,263.9)	(1,235.6)	(1,250.5)	(1,244.6)	(1,243.3)	(1,260.8)	(1,299.1)	(1,341.8)	(1,385.8)	(1,431.2)	(1,478.2)	(1,526.7)
Result before taxes	1,577.2	1,524.0	1,740.6	1,975.9	1,978.5	1,949.3	2,582.9	2,485.8	2,444.4	2,434.0	2,519.0	2,644.1	2,789.1	2,944.4	3,071.7	3,184.8	3,291.4
Statutory taxes	(468.5)	(452.6)	(517.0)	(587.0)	(587.6)	(579.1)	(767.3)	(738.4)	(726.1)	(723.0)	(748.3)	(785.4)	(828.5)	(874.6)	(912.4)	(946.1)	(977.7)
Core tax adjustments	38.0	29.1	133.0	81.0	(64.8)	176.9	161.1	138.0	138.0	138.0	138.0	138.0	138.0	138.0	138.0	138.0	138.0
Core result	1,146.7	1,100.5	1,356.6	1,469.9	1,326.1	1,547.1	1,976.7	1,885.4	1,856.3	1,849.0	1,908.7	1,996.7	2,098.6	2,207.8	2,297.2	2,376.8	2,451.7
Other operating income	632.7	523.7	431.3	379.5	517.7	623.8	561.6	532.2	529.8	532.5	552.0	580.7	613.5	648.7	680.4	710.8	740.9
Personnel costs	(187.9)	(215.7)	(212.3)	(202.5)	(199.2)	(205.6)	(215.9)	(219.2)	(218.8)	(220.7)	(229.4)	(242.1)	(256.6)	(272.1)	(286.3)	(300.0)	(313.6)
Other operating expenses	(38.1)	(51.7)	(63.1)	(68.3)	(39.0)	(153.7)	(139.8)	(98.0)	(97.7)	(98.4)	(102.2)						

Cash Flow Statement Forecast in €m	FY 2018 Act	FY 2019 Act	FY 2020 Act	FY 2021 Act	FY 2022 Act	FY 2023 Act	FY 2024 FC	FY 2025 FC	FY 2026 FC	FY 2027 FC	FY 2028 FC	FY 2029 FC	FY 2030 FC	FY 2031 FC	FY 2032 FC	FY 2033 FC
Net income from continuing operations	1,300.3	1,274.6	(1,937.0)	1,947.3	1,732.0	2,190.4	2,105.6	2,166.7	2,214.0	2,240.8	2,353.3	2,480.3	2,641.9	2,763.6	2,862.0	2,961.0
Income taxes	464.1	358.4	334.5	946.7	485.0	658.6	698.6	718.9	734.6	743.5	780.8	823.0	876.6	916.9	949.6	982.4
Interest income/expenses	271.7	264.9	192.9	191.7	119.5	132.1	205.2	164.8	119.2	102.7	93.6	82.9	69.7	44.7	28.8	13.2
Dividends received	249.8	216.9	223.3	301.8	209.3	203.4	197.3	197.4	197.4	197.4	197.4	197.4	197.4	197.4	197.4	197.4
Interest received	107.3	132.6	102.3	75.0	272.5	158.9	215.9	466.5	337.3	290.6	265.0	234.7	197.3	126.5	81.6	37.4
Interest paid	(507.9)	(485.2)	(367.6)	(287.6)	(211.6)	(321.9)	(419.9)	245.9	177.7	153.2	139.7	123.7	104.0	66.6	43.0	19.7
Income taxes paid	(260.8)	(294.1)	(340.9)	(747.3)	(359.9)	(522.3)	(550.3)	(566.3)	(578.6)	(585.6)	(615.0)	(648.2)	(690.5)	(722.3)	(748.0)	(773.9)
Depreciation, amortisation, and impairment	1,129.8	1,468.1	4,832.8	1,104.9	1,402.3	1,233.3	1,250.5	1,244.6	1,243.3	1,260.8	1,299.1	1,341.8	1,385.8	1,431.2	1,478.2	1,526.7
Other eliminations	(354.9)	(33.1)	98.7	(607.4)	(168.0)	(78.8)	351.2	(823.3)	(499.2)	(470.9)	(536.8)	(120.8)	(172.4)	(572.6)	(530.3)	(467.0)
Cash flow	2,399.4	2,903.1	3,139.0	2,925.1	3,481.1	3,653.7	3,854.1	3,815.2	3,945.5	3,932.4	3,977.0	4,514.6	4,609.7	4,252.0	4,362.4	4,496.9
Changes in operating assets	(332.4)	118.6	125.1	(650.5)	(900.0)	(83.4)	(84.6)	(32.8)	(24.4)	(169.5)	(256.0)	(291.5)	(312.9)	(279.5)	(265.2)	(262.2)
Changes in operating liabilities	225.8	(45.2)	110.5	443.7	95.3	(121.6)	(383.8)	(53.0)	159.9	212.4	501.6	253.1	430.4	387.7	360.9	364.8
Changes in working capital	(106.6)	73.4	235.6	(206.8)	(804.7)	(205.0)	(468.4)	(85.8)	135.5	42.9	245.7	(38.4)	117.5	108.2	95.7	102.6
Decrease in provisions through cash payments	(323.7)	(300.3)	(328.2)	(244.8)	(241.1)	(220.5)	-	-	-	-	-	-	-	-	-	-
Cash flow from operating activities – continuing operation	1,969.1	2,676.2	3,046.4	2,473.5	2,435.3	3,228.2	3,385.7	3,729.4	4,081.0	3,975.3	4,222.7	4,476.2	4,727.2	4,360.2	4,458.1	4,599.5
Cash flow from operating activities – discontinued operations	(0.9)	(12.7)	(19.5)	(77.4)	(15.2)	(23.1)	-	-	-	-	-	-	-	-	-	-
Cash flow from operating activities	1,968.2	2,663.5	3,026.9	2,396.1	2,420.1	3,205.1	3,385.7	3,729.4	4,081.0	3,975.3	4,222.7	4,476.2	4,727.2	4,360.2	4,458.1	4,599.5
Intangible assets	(24.2)	(47.8)	(47.4)	(27.2)	(35.1)	(57.8)	(304.0)	(313.5)	(323.5)	(333.7)	(344.2)	(355.1)	(366.3)	(377.8)	(389.7)	(402.0)
Property, plant and equipment	(1,036.6)	(1,135.0)	(921.9)	(1,484.2)	(1,300.1)	(1,271.9)	(1,485.7)	(1,548.1)	(1,619.5)	(1,700.7)	(1,791.2)	(1,850.1)	(1,910.9)	(1,973.6)	(2,038.5)	(2,105.5)
Government grants	-	-	-	91.9	75.6	94.4	-	-	-	-	-	-	-	-	-	-
Subsidiaries and other business units	(623.9)	(89.6)	(76.3)	(144.8)	(63.5)	(414.2)	(226.1)	(226.1)	(226.1)	(226.1)	(226.1)	(226.1)	(226.1)	(226.1)	(226.1)	(226.1)
Other financial assets, associates, and joint ventures	(38.7)	(41.4)	(21.8)	(35.0)	(487.8)	(200.2)	(74.0)	(71.5)	(69.1)	(66.6)	(64.2)	(61.7)	(59.3)	(56.8)	(54.4)	(51.9)
Investments (cash outflow)	(1,723.4)	(1,313.8)	(1,067.4)	(1,599.3)	(1,810.9)	(1,849.7)	(2,089.7)	(2,159.3)	(2,238.1)	(2,327.0)	(2,425.7)	(2,492.9)	(2,562.5)	(2,634.4)	(2,708.7)	(2,785.5)
Intangible assets	-	3.1	0.3	0.3	-	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7
Property, plant and equipment	-	173.1	67.1	183.8	144.8	135.2	136.5	138.9	142.0	145.8	150.2	155.1	160.2	165.5	170.9	176.6
Subsidiaries and other business units	280.4	159.2	1.9	2,004.9	144.8	26.6	109.3	109.3	109.3	109.3	109.3	109.3	109.3	109.3	109.3	109.3
Other financial assets, associates, and joint ventures	282.0	71.8	48.9	30.1	39.0	207.8	74.0	71.5	69.1	66.6	64.2	61.7	59.3	56.8	54.4	51.9
Divestments (cash inflow)	562.4	407.2	118.2	2,219.1	328.6	370.1	320.2	320.3	320.9	322.3	324.3	326.8	329.5	332.3	335.3	338.5
Cash from changes in consolidation scope	26.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cash flow from investing activities – continuing operation	(1,134.3)	(906.6)	(949.2)	619.8	(1,482.3)	(1,479.6)	(1,769.5)	(1,839.0)	(1,917.2)	(2,004.7)	(2,101.4)	(2,166.1)	(2,233.0)	(2,302.1)	(2,373.4)	(2,447.0)
Cash flow from investing activities – discontinued operations	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cash flow from investing activities	(1,134.3)	(905.7)	(949.2)	619.8	(1,482.3)	(1,479.6)	(1,769.5)	(1,839.0)	(1,917.2)	(2,004.7)	(2,101.4)	(2,166.1)	(2,233.0)	(2,302.1)	(2,373.4)	(2,447.0)
Capital increase of/repayment to non-controlling interests	7.6	(0.2)	(10.2)	(0.5)	(1.7)	0.7	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)
Dividend to Heidelberg Materials AG shareholders	(377.0)	(416.7)	(119.1)	(436.5)	(458.3)	(484.1)	(569.9)	(684.8)	(749.8)	(809.9)	(851.5)	(898.4)	(958.3)	(1,003.3)	(1,039.7)	(1,076.4)
Dividends to non-controlling interests	(187.5)	(169.4)	(203.8)	(181.2)	(169.4)	(94.9)	(92.2)	(94.8)	(97.4)	(98.3)	(103.4)	(109.2)	(116.4)	(121.9)	(126.3)	(130.7)
Acquisition of treasury shares	-	-	-	(349.8)	(350.0)	(298.0)	(400.0)	(400.0)	(400.0)	(400.0)	(500.0)	(500.0)	(500.0)	-	-	-
Decrease in ownership interests in subsidiaries	5.9	209.2	1.8	2.9	2.7	-	-	-	-	-	-	-	-	-	-	-
Increase in ownership interests in subsidiaries	(25.6)	(92.2)	(21.8)	(102.5)	(78.4)	-	-	-	-	-	-	-	-	-	-	-
Proceeds from bond issuance and loans	1,693.1	860.5	659.1	1.7	1.9	1,504.6	-	-	-	-	-	-	-	-	-	-
Repayment of bonds, loans and lease liabilities	(1,520.1)	(1,324.7)	(2,893.4)	(1,803.8)	(1,393.7)	(737.5)	268.0	384.1	455.5	298.4	320.3	354.2	567.8	370.1	351.7	343.3
Changes in short-term financial liabilities	55.4	60.1	(53.8)	30.0	(92.0)	243.9	-	-	-	-	-	-	-	-	-	-
Cash flow from financing activities	(348.2)	(873.4)	(2,641.2)	(2,839.7)	(2,538.9)	134.7	(794.8)	(796.2)	(792.4)	(1,110.4)	(1,135.2)	(1,154.1)	(507.6)	(755.8)	(815.0)	(864.5)
Net change in cash and cash equivalents – continuing operat	486.9	897.1	(544.0)	253.6	(1,585.9)	1,883.3	821.5	1,094.2	1,371.5	860.1	986.0	1,155.9	1,986.6	1,302.4	1,269.7	1,288.0
Net change in cash and cash equivalents – discontinued oper	(0.9)	(12.7)	(19.5)	(77.4)	(15.2)	(23.1)	(24.8)	(24.8)	(24.8)	(24.8)	(24.8)	(24.8)	(24.8)	(24.8)	(24.8)	(24.8)
Net change in cash and cash equivalents	486.0	884.4	(563.5)	176.2	(1,601.1)	1,860.2	796.7	1,069.4	1,346.7	835.3	961.2	1,131.1	1,961.8	1,277.6	1,244.9	1,263.2
Effect of exchange rate changes	(6.7)	73.5	(108.1)	64.8	(60.1)	(47.6)	(14.0)	(14.0)	(14.0)	(14.0)	(14.0)	(14.0)	(14.0)	(14.0)	(14.0)	(14.0)
Cash and cash equivalents at 1 January	2,108.8	2,588.1	3,546.0	2,874.4	3,115.4	1,454.2	3,266.8	4,049.4	5,104.8	6,437.5	7,258.8	8,206.0	9,323.0	11,270.8	12,534.4	13,765.2
Cash and cash equivalents at 31 December	2,588.1	3,546.0	2,874.4	3,115.4	1,454.2	3,266.8	4,049.4	5,104.8	6,437.5	7,258.8	8,206.0	9,323.0	11,270.8	12,534.4	13,765.2	15,014.4

HEIDELBERG MATERIALS AG

CONSTRUCTION MATERIALS

STUDENT: D. RIEDMANN / K. KIESINGER

COMPANY REPORT

14 DECEMBER 2021

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Solid foundations for the future

Heidelberg Materials withstands unfavorable market conditions

- Based on our analysis, our recommendation is to **HOLD** Heidelberg Materials AG with a **target price of €126.62** as of 31.12.2025. This implies an upside potential of 3.35%, including an expected dividend of €3.19 to be paid out in H1 2025.
- Favorable trends like the socio-demographic development, the increasing focus on climate protection and resource efficiency as well as on digitalization will sharpen the future of the construction materials industry and will provide further growth – however, the main driver will be the sustainability along the construction industry value chain.
- We consider the greatest risks to be the shortage of skilled workers and fluctuating energy and raw materials prices, which affect the entire industry.
- We believe that Heidelberg Materials will be able to generate solid sales growth in the future, offsetting a medium market outlook in the short-term. However, we believe that the outlined risks will have a negative long-term impact on margins.
- We are convinced that the recent increase in the share price reflects the future value from sustainability efforts, for which Heidelberg Materials has been a pioneer over the recent past.

Company description

Heidelberg Materials AG, established in 1873 and headquartered in Heidelberg, Germany, is a leading global producer, distributor as well as supplier of building materials, including cement, aggregates, ready-mixed-concrete and asphalt. By December 2024, the company operated in over 50 countries across five continents, employing approx. 51,000 people.

Recommendation: **HOLD**

Price Target FY25: **€126.62**

Price (as of 12-Dec-24) **€125.60**

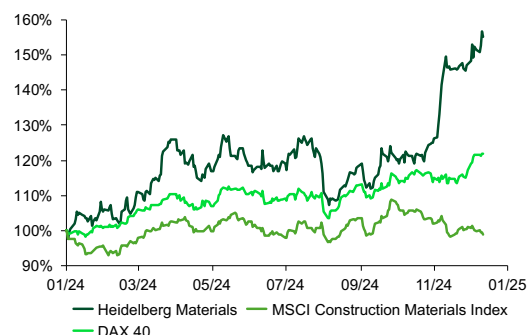
Reuters: HEIG.DE, Bloomberg: HEI

52-week range (€) 78.58-126.90

Market Cap (€m) 22,469

Outstanding Shares (m) 178.89

Source: Yahoo Finance



Source: FactSet

(Values in € millions)	2023	2024E	2025F
Revenues	21,307	20,987	21,892
EBITDA	4,259	4,284	4,330
EBIT	3,023	3,034	3,085
Net Profit	1,929	1,900	1,956
EPS (in €)	3.00	3.19	3.90
Capex	1,850	2,090	2,159
Free Cash Flow	1,319	962	1,374

Source: Annual Report 2023, Analyst Forecast

THIS REPORT WAS PREPARED EXCLUSIVELY FOR ACADEMIC PURPOSES BY DAMIAN RIEDMANN AND KAI KIESINGER, MASTER IN FINANCE STUDENTS OF THE NOVA SCHOOL OF BUSINESS AND ECONOMICS. THE REPORT WAS SUPERVISED BY A NOVA SBE FACULTY MEMBER, ACTING IN A MERE ACADEMIC CAPACITY, WHO REVIEWED THE VALUATION METHODOLOGY AND THE FINANCIAL MODEL. (PLEASE REFER TO THE DISCLOSURES AND DISCLAIMERS AT END OF THE DOCUMENT)

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Company Overview

Company Description



Globally active and a leading player in the construction materials industry

Heidelberg Materials focuses increasingly on sustainability

Heidelberg Materials AG (also “HEI”) is a manufacturer and distributor of an array of building materials for a diverse range of applications. The core activities of production of construction materials are complemented by related activities such as trading of materials. The company was **established in 1873 in Heidelberg, Germany** where it remains in headquarters until this day. Its business activities reach a global customer universe, with production facilities in more than **50 countries** and around **2,700 locations globally, employing 51,000 people**.

Since its founding in 1873, Heidelberg Materials has evolved from a local cement manufacturer in Heidelberg, Germany, into a **global leader in the construction materials industry**. The company’s early success was built on innovation, introducing groundbreaking cement products that addressed the growing demand for durable construction materials during industrial expansion. Over the decades, HEI pursued strategic international growth, entering new markets and expanding its portfolio through acquisitions and partnerships. This allowed the company to develop a comprehensive network of production facilities and supply chains, solidifying its position as a **trusted provider of high-quality building materials**. Today, the company leverages its rich history of innovation and global reach to remain at the forefront of **sustainable construction solutions**.

Heidelberg Materials products and services are applied in the **construction of housing, facilities for commercial and industrial use as well as infrastructure**. The business model incorporates the entire value chain from extraction of the materials to the recycling after the demolition of the construction. The company started as an innovating manufacturer of a new cement material and remains its strong research and development activities to date. Today, most of the company’s research and development of products evolves around the topic of **sustainability** and especially **circular economy**. Circular economy is the idea that in the demolition of constructions, the demolition is selective, allowing the companies to separate the materials into aggregates which can then be recycled in the production of fresh concrete, as well as recycled concrete paste which can then flow straight in the production of cement, also serving as a base material for fresh concrete. This process saves resources for the production of concrete, including sand and gravel. For example, HEI's ReConcrete 360° pilot program separates concrete waste into its components, recovering valuable low-carbon materials while maintaining the quality of non-recycled products.

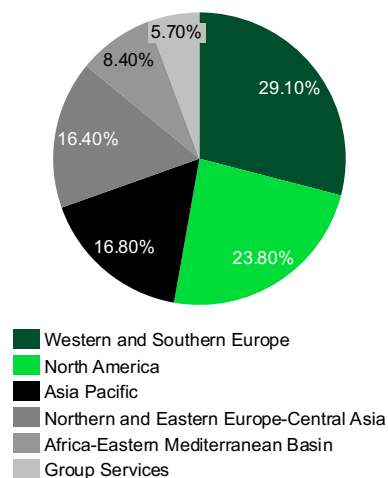


Figure 1: Sales split by group area FY 2023

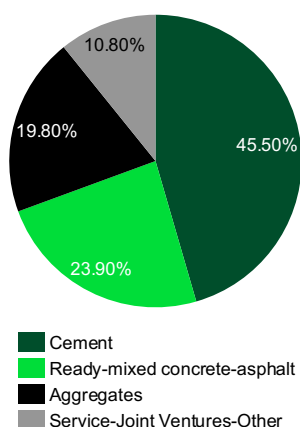


Figure 2: Sales split by product FY 2023

Its business activities are divided into **different Group areas**, separated both by the business lines as well as the geography. The geographic splits were **Western and Southern Europe, Northern and Eastern Europe-Central Asia, North America, Asia-Pacific** as well as **Africa-Eastern Mediterranean Basin**. As of January 2024, most of the Northern and Eastern Europe-Central Asia Group region has been merged with Western and Southern Europe to create the **Europe** Group area.¹ The largest share of sales in FY23 has been made in Western and Southern Europe, where the company is headquartered. North America is the second largest, Asia Pacific the third largest. The Northern and Eastern Europe-Central Asia area also makes up a significant share, while Africa-Eastern Mediterranean Basin and Group Services are the smaller business lines. Within those geographies there are the different operational business lines, those being: **Cement** business line, **Aggregates** business line, **Ready-mixed concrete-asphalt** business line and the **Service-joint ventures-other** business line. Those divisions are then supplemented by a **Group Services** business unit, primarily comprising the Group's trading activities. In the most recent FY23, the Cement business line was by far the most important to the Group. Sales of the ready-mixed concrete-asphalt and Aggregates business lines together make up slightly less than the Cement business and the Service-Joint Ventures-Other business line is the smallest of the business lines in FY23.

The managing board of Heidelberg Materials AG comprises nine members who collectively oversee the company's strategic and operational governance. Led by **Dr. Dominik von Achten, the Chairman** since 2020, the board includes the **Chief Financial Officer, René Aldach**, the newly created position **Chief Technical Officer, held by Axel Conrads**, as well as regional heads for the key geographic areas (Europe, Asia, North America, and Africa-Mediterranean-Western Asia) and leaders responsible for critical functions such as sustainability, digitalization and technology. Responsibilities of the managing board were adjusted to match the recent change in the split of business activities. The board members are appointed by the Supervisory Board for terms of up to five years, with responsibilities spanning areas such as investor relations, human resources, and regulatory compliance. This structure enables Heidelberg Materials to maintain a balanced focus on global strategy, innovation, and regional market needs. For more details on the board, please refer to Appendix 1.

¹ A slightly new split was introduced over the course of FY24, however, since all historic financials apply the old split, we will be applying the old split for the sake of forecast accuracy.

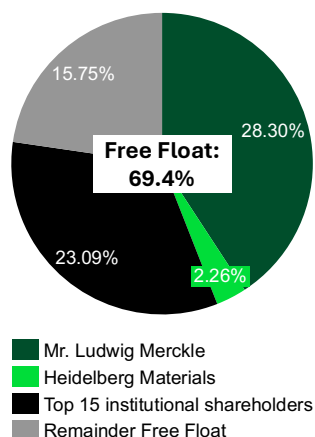


Figure 3: Shareholder structure

As Heidelberg Materials is included in several major indices (further details will be provided below), the company attracts **significant interest from institutional investors**, resulting in a **highly diversified shareholder base**. 69.4% of the shares of Heidelberg Materials are traded publicly as freefloat. **Ludwig Merckle**, member of Supervisory Board as well as Chairman of the Personnel Committee and chairman of the Merckle Group, is the largest and an anchor shareholder in the company holding significantly more than the largest 15 institutional shareholders combined. The Merckle Group has a broad network of shareholdings, primarily in the pharmaceutical industry in addition to building materials and engineering.

Recent Financial Development

In the **first nine months of 2024**, Heidelberg Materials experienced a decline in revenue but an improvement in operational results and margins. HEI generated **sales of €15,570m**, which was 3% less than in 9M 2023 (€16,083m). This decline was primarily due to reduced volumes across all group areas, triggered by the economic downturn in Europe and unfavorable weather conditions in North America. **Operating EBITDA**, on the other hand, increased from €3,179m in 9M 2023 to **€3,280m in 9M 2024**, resulting in a **positive margin effect** of 106 bps from 19.8% to 20.8%.

Sales in Europe fell slightly by 2.7%, due to weaker demand in key countries, but at the same time only partially offset through demand recovery in Eastern Europe. The RCO (result from continuing operations) **margin fell slightly from 14.7% to 14.2%**, even though Q3 was better at 18.0%, driven by positive price over cost. At the same time, sales in North America increased by 0.5%, mainly due to new acquisitions and favorable price developments. The RCO margin increased strongly from 15.8% to 19.1%, driven by solid price development and disciplined cost management. In addition, the company benefited from **highly accretive mergers and acquisitions** in North America, which delivered strong returns.

In Asia-Pacific, sales fell by 5.2%, but the RCO margin remained at 10.2% due to a challenging market environment that put pressure on both demand and pricing, with a positive effect from stable business development in Australia. For Africa-Mediterranean Basin-West Asia (AMEWA), revenue fell by 6.2%, while the RCO margin fell by just 0.7% to 19.1%. Even the third quarter, with a slight increase in revenue and good cost management, was unable to make up for this, due to **devaluation impacts** as a result of a difficult geopolitical and macroeconomic environment in the months before.

Year	Revenue Development		Change in %
	9M 2023	9M 2024	
Europe	7,291	7,094	(2.7%)
North America	3,956	3,975	0.5%
Asia-Pacific	2,759	2,615	(5.2%)
AMEWA	1,756	1,647	(6.2%)
Group Services	1,019	1,015	(0.4%)

Figure 4: Revenue development by region for 9M 2023 and 9m 2024

Improved margins through efficient cost management despite volume decline in 9M 2024

Overall, management raised the outlook for the result from continuing operations (RCO) in 2024 slightly, from €3.0-3.3bn to €3.1-3.3bn, with a ROIC of around 10%. Despite lower volumes and declining sales, Heidelberg Materials improved its EBITDA and operating margins in the first nine months of 2024 through effective cost management, strategic price increases and strong contributions from recent investments. The company's strategic measures, including portfolio optimization and sustainability initiatives, have had a positive impact on the financial performance.

HEI maintains a balanced capital structure with **total equity at 52.5% of its balance sheet** and a reduced net debt of €6.8bn at the end of H1 2024. The company enhanced its financial flexibility by **issuing two green bonds** throughout 2024 with a **total value of €1.2bn**, resulting in a leverage of 1.5x and underscoring its robust financial position.

Heidelberg Materials Stock

Heidelberg Materials has been listed since 1889 on the Frankfurt stock exchange and is a **member of the DAX40** (then DAX 30) since June 2010, a German index comprising the countries' 40 largest companies on the stock exchange. This makes it the only construction and construction materials company within Germany's largest 40 companies. Besides the DAX40, the company is also a member of the **S&P Global 1200 Construction Materials Index** as well as the **STOXX Europe 600 Construction & Materials Index**. Additionally, it is a member of the sustainability indices **FTSE4Good Europe** and **DAX 50 ESG**. When comparing the development of Heidelberg Materials with the DAX40 and the MSCI Construction Materials Index (both of which HEI uses as a benchmark), it becomes evident that while HEI fluctuates similarly to these indices, its overall growth trend, however is weaker, with the exception of the last 2 years.

As of the end of December 2023, the market capitalization of HEI was at around €16.6bn, which is up significantly from €10.92bn in December 2022. This movement was mainly driven by a raised outlook for FY23, a completed share buyback, record results in FY23 as well as the increasing focus on sustainable products. The share also rose sharply in the fourth quarter of 2024, mainly due to the good quarterly results and positive analyst opinions (average target share price as of November 2024: €130.58), resulting in a **market cap of €22.5bn** as of December 12th, 2024.²

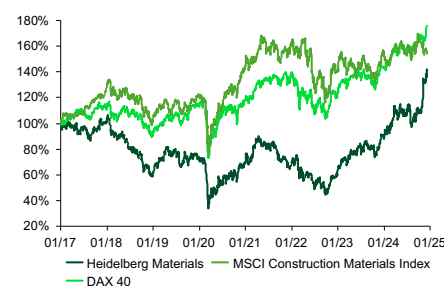


Figure 5: Share price development over the last 5 years (indexed)

² Finanzen.net, "November 2024: Das sind die Expertenmeinungen zur Heidelberg Materials-Aktie"

Stable payout ratio over the last years

With the exception of FY19, Heidelberg Materials has maintained a **payout ratio of around 30% over the recent years**. For FY19, HEI intended to distribute a dividend of €2.20 per stock, however, adjusted the dividend to €0.60 per share in light of the Covid-19 crisis and the concomitant global uncertainty. The medium-term **target for the payout ratio remained at 40%**. Additionally, the company has announced a **second share buyback program** in February 2024, with a **total value of €1.2bn and a maturity of three years**, consisting of three tranches in which the buyback is to be concluded. This is in line with the company financial policy and is in relation to the successful reduction of net debt, the strong performance in the previous year as well as participating investors in the company's success. This buyback will take place on the stock exchange and comes after a buyback program announced in August 2021 was concluded in October 2023 with a total volume of €998m (including transaction costs). The **first tranche of €350-400m** the buyback program will be finalized by the end of FY24.

M&A Strategy

M&A activities with a focus on sustainability as well as expansion in the U.S. market

Heidelberg Materials' M&A strategy focuses on **expanding its portfolio in the core and recycling sectors**, with a strong emphasis on targeted, smaller acquisitions in its main markets of the USA and Europe. Recent acquisitions, such as Aaron Materials (concrete recycler) and Bristol & Avon Transport (aggregate recycling company), highlight the company's **commitment to sustainable and recycled materials**, aligning with its climate targets and dedication to a circular economy. Additionally, several transactions in the USA have further strengthened its geographic footprint. At the same time, HEI is optimizing its portfolio by divesting less strategic assets, such as transport and mining activities. The strategy combines sustainable growth, regional consolidation, and a focus on future-oriented segments like sustainability, digitalization, and decarbonization. While the company is open to deals of various sizes, larger transactions will remain limited to its core markets. Transactions are typically executed at 6-8x EV/EBITDA before synergies.³ Importantly, every transaction must contribute to net profit, and HEI has committed not to raise equity for acquisitions. This **selective approach** balances portfolio optimization with targeted growth, ensuring alignment with the company's long-term strategic goals. An overview of all M&A transactions completed YTD FY24 can be found in Appendix 2.

³ JPMorgan, "Heidelberg Materials"

Market and Industry Overview

Macroeconomic Environment

While Europe continues its recovery, Germany struggles to keep pace

In 2024, the European economy recovered moderately after a phase of stagnation. Inflation in the EU fell from 6.4% in 2023 to 2.6% in 2024, which **strengthened the purchasing power of households and boosted private consumption**. With the recovery in real wages and improved credit conditions, domestic demand increased, which supported economic growth. The EU Commission expects growth of 0.8% for the eurozone in 2024, driven primarily by Poland and Spain (both with 3.0%). Germany, on the other hand, remains an underperformer and will shrink by 0.1% in the current year, following a decline of 0.3% in the previous year, which means a two-year recession. German industry is suffering from a **weak order situation** due to lower global demand for industrial goods, increasing global economic fragmentation and sluggish investment activity.⁴

Expanding economy in the US

Despite contrary predictions by various analysts, the US economy is bursting with strength in 2024 and is receiving an additional tailwind following the election of Donald Trump, as share prices and the US dollar have risen sharply. GDP rose by 2.8% in Q3 2024 alone.⁵ This development is mainly driven by **strong private consumption** as well as **rising exports** (especially of capital and consumer goods), with the economy defying the still **comparatively high interest rates** of the US Federal Reserve (Fed) of 4.5-4.75%. However, these are likely to be lowered by 25 bps by the Fed this December, while the rise in exports is not seen as sustainable by economists, as global demand is dampened by the uncertain economic situation in China and the fragile situation in the eurozone.⁶

Resilient growth in Asia

In 2024, Asia has recorded moderate economic growth of 4.6% so far, however, this is below the level before the pandemic (5.0%).⁷ East Asia benefits mainly from export demand for semiconductors from Korea and Tapei, while South Asia benefits mainly from the solid growth of India, driven by a growing middle class and infrastructure investments, as India is the fastest growing country in Asia with 7% GDP growth in 2024, largely driven by the Indian government goal to spend \$1,400bn on infrastructure by 2025. The Pacific region is benefiting above all from the upturn in tourism.⁸ At the same time, **China is slowing down regional**

⁴ European Commission, "Autumn 2024 Economic Forecast"

⁵ U.S. Department of Commerce, "Commerce Data Show Strong Economic Gains Due to Americans Making and Spending More"

⁶ Mutikani, Lucia, "Smaller US trade deficit supports strong economic growth estimates for third quarter"

⁷ International Monetary Fund, "Asia and Pacific"

⁸ Asia Development Bank, "Economic Forecasts for Asia and the Pacific"

momentum: persistent weakness in the real estate sector, triggered by years of debt-financed growth, speculation and regulatory intervention, as well as weak consumer confidence are depressing growth and thus weighing on the local financial markets.⁹

The global economy is expected to see slow growth in 2025, with the IMF projecting a global growth rate of 3.2%. However, this growth is uneven across regions.

Euro Area		
Year	Inflation rate	Real GDP growth
2025	2.0%	1.2%
2026	2.0%	1.5%
2027	1.9%	1.4%
2028	2.0%	1.3%
2029	2.0%	1.2%

Figure 6: Inflation rate and real GDP growth, Euro Area, IMF forecast

The **real GDP growth** forecast for the Euro areas has been revised downward to **1.2% in 2025** by the IMF, with larger economies like Germany and France contributing to the slowdown. Growth is projected to develop flat, peaking at 1.5% in 2026. Structural challenges, including aging populations, weak productivity as well as the pressure of the energy transition, hinder the region's recovery and are expected to dampen growth in the years ahead. However, **inflation is expected to stabilize near 2%** over the coming years, driven by declining energy prices and gradual wage moderation, with disinflation occurring faster than in emerging markets.

North America		
Year	Inflation rate	Real GDP Growth
2025	2.0%	2.1%
2026	2.1%	2.0%
2027	2.2%	2.1%
2028	2.2%	2.1%
2029	2.2%	2.1%

Figure 7: Inflation rate and real GDP growth, North America, IMF forecast

For North America, the outlook is more optimistic, with a **real GDP growth forecast of 2.1% in 2025**, reflecting stronger consumer spending and labor market resilience. Fiscal policy remains loose, particularly in the US, with high deficit driven by increased interest expenses. However, inflation has moderated, and the Federal Reserve has begun reducing interest rates, supporting economic activity and stabilizing **inflation rate at 2%**. However, the planned tariffs and trade restrictions under the Trump administration could have a long-term negative impact on foreign trade and therefore on the region's growth potential.

Asia Pacific		
Year	Inflation rate	Real GDP Growth
2025	3.8%	4.4%
2026	3.4%	4.3%
2027	3.2%	4.1%
2028	3.2%	4.0%
2029	3.2%	4.0%

Figure 8: Inflation rate and real GDP growth, Asia Pacific, IMF forecast

The Asia Pacific region remains a key driver of global growth, with **India** and **Southeast Asia** experiencing robust domestic demand as well as significant public as well as private investments in tech and infra, resulting in projected **real GDP growth of 4.4%** and an **inflation rate of 3.8%** in 2025. Meanwhile, **China** faces medium-term challenges, including property sector issues, weak consumer sentiment, declining exports, and structural concerns such as high debt and demographic shifts. Even government incentives could strain public finances, while export-oriented subsidies in key sectors could worsen the situation. These issues have led to a downgraded outlook, with China's slowdown posing risks for global trade and commodity markets (expected real GDP growth of 3.3% by 2029).¹⁰

⁹ Kunath, Gero, „China's real estate crisis“

¹⁰ IMF, „World Economic Outlook“

Market Analysis

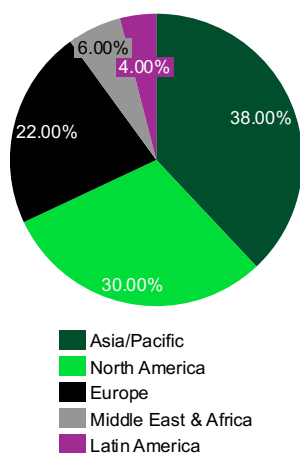


Figure 9: Global construction materials market split by regions

The global construction materials market was estimated at approx. **\$1,300bn in 2023 and projections show growth to approx \$2,000bn in 2034**. This implies a **CAGR of 4.0%** over the projection period. The growth is, amongst other factors, based on the globally increasing demand for residential apartments driving the global construction activity. Additionally, there are significant investments into infrastructure across the globe, which are also a driver for demand of construction material. Thereby, the construction materials industry is closely linked to the construction industry, as it supplies the materials required for construction projects. The market itself can be divided into metallic building materials (aluminum, steel, metals), mineral building materials (bricks, cement, concrete aggregates, asphalt), wood-based building materials and other materials (e.g. floor coverings, coatings and sealants).¹¹ HEI is only active in the mineral sector. However, we analyze the entire construction materials market to better understand broader industry trends and potential shifts that could impact HEI's business environment.

The Covid-19 pandemic caused significant disruption in the construction industry, particularly in the availability of building materials. **Global supply chain issues** caused by factory closures, transportation disruptions and labor shortages led to **shortages and price fluctuations** for key materials such as timber, steel and concrete. This impacted construction projects worldwide as rising prices and delays in production and delivery affected project schedules and budgets, which is still noticeably today.¹²

■ Asia-Pacific

With **38% of the total market**, the Asia-Pacific region accounts for the largest share in 2023. At the same time, this region will grow at a **CAGR of 4.2%** until 2034, making it the second-largest growth region. Growth will be driven primarily by large construction projects in densely populated countries, especially in India, urbanization and the rising demand of residential and commercial buildings, for which cost-effective buildings materials are required.¹³

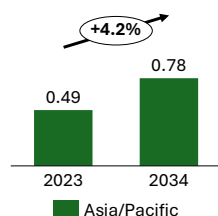


Figure 10: Projected CAGR (23-34) for Asia-Pacific

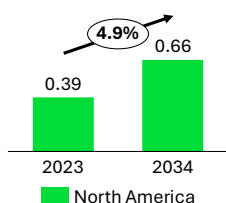


Figure 11: Projected CAGR (23-34) for North America

■ North America

North America is the second largest region with 30%. The **CAGR is expected to be around 4.9%**, making it the region with the highest growth. North America has the highest CAGR due to significant infrastructure investments, urban

¹¹ Mercer Capital, "Construction & Building Materials Industry Segments Experience"

¹² Room 35, "The Impact: Effects Of COVID19 In The Construction Industry"

¹³ Precedence Research, "Building Materials Market Size"

development and growing demand for sustainable building solutions, driven in particular by government initiatives and the modernization of ageing infrastructure.¹⁴

▪ Europe

With a **market share of 22%**, Europe is the third largest market. Growth in Europe is strongly characterized by sustainability, environmental regulations and energy-efficient construction methods. The modernization of infrastructure, ongoing urbanization and the focus on innovative, environmentally friendly materials are driving development in this region. However, the **CAGR is expected to be 2.7%**, as market growth is being held back by the already mature infrastructure, slower economic growth and a stronger focus on renovations rather than large-scale new builds.¹⁵

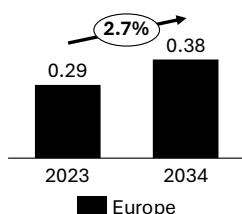


Figure 12: Projected CAGR (23-34) for Europe

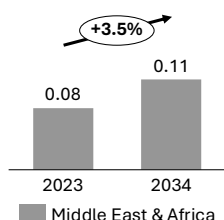


Figure 13: Projected CAGR (23-34) for Middle East and Africa

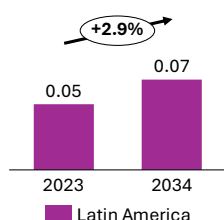


Figure 14: Projected CAGR (23-34) for Latin America

▪ Other

Market growth in the Middle East and Africa (6% of the total market in 2023) is estimated at a **CAGR of 3.5%** due to urbanization, infrastructure and a shift towards sustainable materials. However, the growth is held back by political instability, economic inequality and a heavy dependence on oil revenues, with limited infrastructure development in less affluent countries, as well as high financing problems.¹⁶

The Latin American construction materials market (4% of the total market in 2023) is growing due to public investments in infrastructure, education and healthcare as well as renewable energy and housing projects across key countries. However, the country has the lowest **CAGR at 2.9%**, due to economic challenges such as high inflation, rising interest rates, political instability and limited access to foreign investments, which are slowing down project execution.¹⁷

Competition

Due to the heavy weight of cement and the resulting need for short delivery distances, Heidelberg Materials primarily faces competition from a variety of local players, such as Cementos Molins in Spain or Dangote PPC in Africa. However, in key regions, certain competitors hold greater significance due to their size, geographical presence, an international footprint and similar product portfolios. We identify the following companies as Heidelberg Materials' key competitors in their

Variety of local competitors

¹⁴ StratEdge Analytics, "Construction Materials Market Size"

¹⁵ Marketresearch.com., „Europe Construction Materials Market Summary"

¹⁶ P&S Intelligence, "U.A.E. Construction Material Market Size & Share Analysis"

¹⁷ GlobalData, „Latin America Construction Market Size"

three key regions (according to HEI's market split by regions), though numerous other local competitors exist.

- Europe



CRH plc (Ireland) generated €32.05bn in revenue in 2023 with an EBITDA margin of 17.5%, with operations in 28 countries and employing 78,500 people. 65% of sales were from America and 35% from Europe. CRH's product range, which includes aggregates, cement, concrete, and asphalt, makes it a key competitor to HEI in both regions, despite having a broader portfolio, including infrastructure solutions.



Holcim Group (Switzerland) earned €28.7bn in revenue in 2023 (EBITDA margin: 21.8%) with 63,450 employees. Its core segments are cement (45%), ready-mix (21%), and aggregates (12%). Most sales are in the USA (29%) and in Europe (27%). Holcim is a major competitor due to its similarities in business structure, product portfolio and global reach.



Buzzi Unicem S.p.A. is an Italian cement and building materials manufacturer with €4.3bn in revenue in 2023 and employing 9,600 people. The company focuses on environmentally friendly products and operates two business units: concrete (70% of sales) and cement & aggregates (30% of sales). 40% of its sales are generated in the U.S., while 60% are generated in the European markets.

- America



Cemex S.A.B. de C.V. (Mexico) achieved €15.9bn in sales in 2023 (EBITDA margin: 17.3%) with 46,000 employees. Its core product areas are cement (42%) and ready-mix (33%), with a geographical focus on Mexico, the U.S., and Europe. Cemex is a major competitor due to its size and focus on sustainable, innovative solutions like its Vertua portfolio (concrete products with net-zero CO2).



Martin Marietta is a leading supplier of building materials in the USA. In 2023, the company generated €6.2bn with an EBITDA margin of 31.2% and with over 9,000 employee. In addition to the main business of aggregates, the other business units are cement, ready-mix concrete and asphalt & paving. Almost 99% of sales are generated in the USA, which makes Martin Mariette less of a global competitor, but even more a strong American competitor.



Votorantim Cimentos is the largest cement company in Brazil and one of the largest in the world. The company generated a revenue of €4.3bn in 2023 (EBITDA margin of 20.6%) and has over 15,000 employees. Votorantim is active worldwide with a focus on North and South America, but also in some European countries. In

addition to cement and ready-mix concrete, the company also offers aggregates and other building materials such as clinker and mortar.

- Asia



Anhui Conch is the largest cement manufacturer in China. With 78% of sales, the focus is on cement, but aggregate, concrete and clinker are also offered. In 2023, the company generated a turnover of €18.2bn (EBITDA margin of 14.3%) with over 50,000 employees. Only 4% of turnover was generated from product exports outside China. This means that the company has little international presence but is a major competitor in China.



China National Building Material (CNBM) is a Chinese state-owned company and one of the largest building materials manufacturers globally. In 2023, it generated €44.7bn in revenue (EBITDA margin of 12.5%) and employed over 200,000 people. Over 90% of its sales come from China, with segments in basic building materials (57%), new materials (23%), and engineering services (20%).



Taiheiyo Cement has 12,700 employees and a turnover of €5.5bn in 2023/2024 (EBITDA margin of 13.9%). While 61% of the main turnover is generated in Japan, 28% is realized in the USA and 11% in the Asia/Pacific region. Divided into 5 business units, the focus is clearly on the cement business with 71% of sales. The other business divisions are mineral resources, environmental and construction materials.

Prevalent Trends

3 megatrends are shaping the industry

The construction materials industry is significantly influenced by three megatrends – socio-demographic change, the growing focus on sustainability as well as digitalization.

- Socio-demographic development

The world's population has grown rapidly since 1950: the mark of 5bn people was passed in 1987, the 7bn mark in 2011 and, as of the end of 2022, there are over 8bn people on this planet. According to UN estimates, the population will grow to 9.7bn by 2050 and peak at 10.4bn in the 2080s before stabilizing by 2100. This growth will be accompanied by a **growing need for housing and infrastructure**, which will increase the demand for building materials. At the same time, **living space per person is increasing**: In Germany, it rose from 39.5sqm in 2000 to

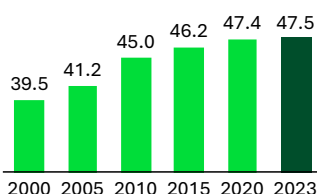


Figure 15: Living space per capita development in Germany (in sqm)

47.5sqm in 2023¹⁸, a trend that is also being observed in other European countries.¹⁹

In addition, more and more people are moving to urban areas. While more than two thirds of the world's population lived in rural regions in 1950, by 2015 more than half (approx. 54%) of the people were already living in cities. This **urbanization trend poses challenges**, particularly due to the lack of available building land in cities. The focus is therefore on **redensification**, in which existing areas are used more intensively. This creates significant opportunities for the building materials industry, as redensification demands specialized materials and innovative methods, opening new markets and enhancing the industry's role in urban design.

- Climate protection and resource efficiency

The construction materials industry ranks as the second-largest segment to global CO2 emissions

The materials sector is one of the largest contributors to global carbon emissions, producing approx. 918 tons of CO2 per \$1mn in turnover, second only to the utilities sector, which emits 2,634 tons. Within the materials sector, **cement production stands out as a significant driver of emissions**, generating 5,400 tons of CO2 per \$1mn in turnover. This impact is partially offset by lower-emission activities like metal or paper production.²⁰ Moreover, **the construction industry as a whole is a major consumer of energy and raw materials, accounting for nearly 40% of emissions in the EU** as well as a third of waste generated in the aforementioned.²¹ Therefore, reducing emissions and resource consumption is a critical priority for the sector. To address these challenges, the industry is increasingly focusing on circular economy practices. According to research by Accenture, the overall circular economy has the potential to unlock an additional \$4,500bn in economic value by 2030, with the building materials sector contributing a significant share to this growth.²²

Innovative approaches such as selective demolition enable the separation of concrete components like sand, gravel and cement paste for reuse, significantly reducing waste and conserving resources. Additional initiatives include the adoption of renewable construction materials, resource-efficient techniques like 3D printing, and sustainable building practices that emphasize energy efficiency and extended building lifespans. The European Union actively supports these efforts, recognizing the construction sector's potential to drive circularity. Key initiatives,

¹⁸ Statista, "Living space per capita in apartments in Germany from 1991 to 2023"

¹⁹ Eurostat, "Housing in Europe – 2023 edition"

²⁰ Visual Capitalist, "Ranked: The Most Carbon-Intensive Sectors in the World"

²¹ European Commission, "Construction and Demolition Waste"

²² Accenture, „The Circular Economy Could Unlock \$4.5 trillion of Economic Growth, Finds New Book by Accenture"

such as the "Circular Economy Action Plan" and the "Waste Framework Directive," promote recycling, particularly of demolition waste, and align with the EU's net-zero and climate neutrality goals. Collectively, these measures not only reduce the environmental footprint of the construction industry but also position it as a central player in achieving sustainability objectives.²³

▪ Digitalization

The construction industry is the least digitized industry

The construction industry has enormous untapped potential in the area of digitalization. According to the Bavarian Research Institute for Digital Transformation, the industry ranks last in the digitalization index.²⁴ Similarly, a study published in 2024 by the Royal Institution of Chartered Surveyors shows that 43% of respondents in the construction materials industry have hardly any digitalized processes - a stagnation compared to 2022 and 2021.²⁵ This highlights the opportunities that technological advances offer to transform construction sites and factories in the coming years. As early as 2016, Roland Berger predicted that **93% of construction companies consider digitalization to be central to all company processes**. Traditional sales models with sales staff tied to specific territories are proving to be inefficient, difficult to scale and expensive. At the same time, the generational shift is increasing the demand for online purchasing options that enable more flexible and efficient processes. Digitalization offers companies in the building materials industry significant opportunities for process optimization and market development. According to a recent study of PwC, 88% of respondents see **great potential for the construction industry in simulation and visualization (+11%)**. At the same time, only 36% rate their skills in this area as good, which shows the existing knowledge gap when it comes to digitalization.²⁶ Companies that successfully integrate digital technologies can strengthen their competitiveness. Therefore, we believe that the upcoming years will be characterized by a **digital race to catch up in the whole construction materials industry**.

Main Risks



Skilled labour shortage: The shortage of skilled workers in Europe poses considerable challenges for the construction industry. A survey conducted by the Association of German Chambers of Industry and Commerce (DIHK) revealed that **65% of construction companies** surveyed in November 2024 see the shortage

²³ European Commission. "Circular Economy Action Plan."

²⁴ bidt, "Digitalization index"

²⁵ RICS, "Digitalization in construction report 2024"

²⁶ PwC, "PwC study on the construction industry 2023"

of **skilled labour as a risk to their economic development**.²⁷ This challenge is a global phenomenon, with 75% of employers worldwide struggling to fill positions, according to a recent study. The issue is particularly pronounced **in the building materials sector, where 84% of employers report difficulties**.²⁸ This bottleneck is driven by weaker population growth, an aging workforce – by 2030, one in six people globally will be over 65 years, with this figure expected to double by 2050²⁹ – as well as low wages. The consequences include **delays in construction projects, rising costs, and reduced competitiveness**. In addition, the shortage of skilled workers is hindering the implementation of digitalization measures, which could jeopardise the industry's innovative strength in the long term.

Fluctuating energy and material prices: Heidelberg Materials is highly exposed to fluctuations in energy and raw material prices due to its energy-intensive production. The company therefore bears a **high risk**, as **sudden supply shocks, changes in demand or geopolitical events** can lead to price increases and supply bottlenecks, as was the case during Covid-19 or the war in Ukraine, for example. As their products make them dependent on the general construction industry, which is also cyclical, the fluctuation only increases. This makes planning, cost management and production more difficult and jeopardizes competitiveness, especially if the company is dependent on a few raw materials without alternatives, as is the case with a cement and concrete manufacturer. This is particularly evident with sand and gravel, essential raw materials for producing concrete and asphalt.³⁰ Challenges such as persistent opposition to maintaining or expanding domestic extraction sites, lengthy planning processes, and rising energy costs for extraction and processing have led to **supply shortages and increasing prices**.³¹

Regulation: Rising regulatory demands in the construction sector, especially concerning sustainability and environmental protection, present significant challenges for building materials companies. These requirements often lead to higher compliance costs and force firms to invest in eco-friendly technologies, potentially impacting their financial performance and competitiveness. The EU Taxonomy, for instance, sets detailed criteria for sustainable activities, creating substantial complexity and requiring significant resources for implementation.³² The Netherlands is already a leader in setting standards for low-CO2 cement, with similar discussions gaining traction in countries like France, Germany and

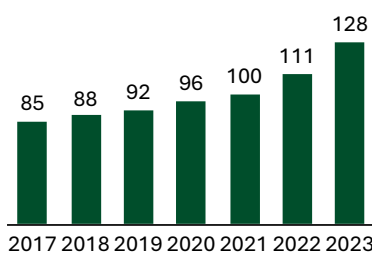
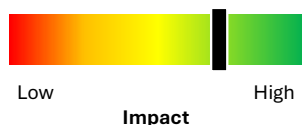


Figure 16: Producer price index for sand and gravel in Germany (2021 = index 100)



²⁷ Bauindustrie, "Fachkräftesituation im Bauhauptgewerbe"

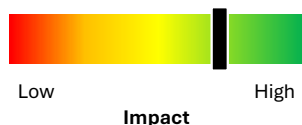
²⁸ Manpower Group, "Skills shortage study 2024"

²⁹ Randstad, "What are the causes of the global skills shortage?"

³⁰ Statista, "Producer price index for sand and gravel in Germany from 2005 to 2023"

³¹ Handelsblatt, "Baurohstoffe Kies und Sand bald wohl noch knapper und teurer"

³² BDO, "Die EU Taxonomie und ihre Auswirkungen auf die Bau- und Immobilienbranche"



Belgium. This trend indicates a **growing push across Europe for stricter sustainability regulations**, which could reshape the industry's landscape.³³

Price pressure: According to a study by PwC, **construction prices in Europe could rise by more than 20%** in the coming years due to factors such as moderate demand, rising energy costs and the aforementioned shortage of skilled workers.³⁴ These developments will affect the profitability of many companies and jeopardize their competitiveness. At the same time, **increasing competitive pressure** is making itself noticeable, especially in Asia, which is putting pressure on prices as more and more players enter the construction materials market, for example in India and Indonesia, where governments have planned high levels of investments in infrastructure.³⁵

Currency risks: Heidelberg Materials, with its extensive international footprint, is exposed to currency risks. However, these risks are effectively managed through **hedging strategies**, resulting in a nearly neutral net impact on currency expenses and income (€2m in FY23). Consequently, we assess the company's currency risk as **low**.

ESG

Heidelberg Materials is committed to sustainability through a **comprehensive ESG strategy**, focusing on carbon neutrality and material circularity. The company aims to **reduce specific net Scope 1 CO₂ emissions to 400 kg per tonne** of cementitious material by 2030, aligning with the Science Based Targets initiative's 1.5°C pathway. To achieve net-zero emissions by 2050, HEI is implementing **carbon capture, utilization, and storage (CCUS)** projects across multiple locations, targeting a cumulative CO₂ capture of 10 million tons by 2030. In support of these decarbonization goals, the company plans to increase the use of alternative fuels to 45% by 2030. It has also expanded its low-carbon product offerings under the evoZero® brand, including the first carbon-captured net-zero cement, which is planned to be produced in Brevik, Norway, from H1 2025. These products utilize advanced carbon-reduction technologies and blockchain verification for transparent emissions tracking.

Heidelberg Materials is also committed to **circularity**, aiming for **50% circular alternatives in its concrete products by 2030**. By incorporating recycled materials such as blast furnace slag and fly ash, the company reduces reliance on

High sustainability goals underline the commitment to become a greener company

Heidelberg Materials plans to produce the first net-zero carbon cement by 2025

³³ Pissort, Mathie, "Low-CO₂ & Recycled Ready-mix Concrete – Road to Adoption"

³⁴ PwC, "Die Preise in der Baubranche werden stark anziehen"

³⁵ Heidelberg Materials, "Analyst Conference Call – Q3 2024"

primary raw materials and promotes resource efficiency through recycling and reuse, contributing to a circular economy. In recognition of its ESG efforts, HEI is **included in several sustainability-focused stock indices**, including the DAX 50 ESG and the FTSE4Good Index.

Socially, the company prioritizes employee safety, diversity, and fair labor practices to foster an inclusive global work culture. Governance practices emphasize transparency and ethical decision-making, with ESG metrics integrated into executive compensation to align leadership incentives with environmental and social performance goals. The Managing and Supervisory Boards oversee these ESG initiatives, supporting Heidelberg Materials' mission to operate responsibly and sustainably, reinforcing its commitment to long-term value creation and regulatory compliance.

Value Drivers and Forecasts

In order to obtain an accurate revenue forecast, we have primarily relied on a detailed bottom-up approach. In our opinion, the most important revenue drivers can be broken down into the number of production plants, the average output of metric tons per plant as well as the price per metric ton sold. For the sake of simplicity, we assume that the number of tons produced is equal to the number of tons sold.

Heidelberg Materials has set itself the goal of becoming the **leading technology group** in the construction materials industry. Digital solutions will primarily contribute to the company's growth and increase efficiency in production and administration. The strategy is based on the pillars HConnect, HProduce and HService: By 2025, more than 75% of the global sales volume is to be handled digitally via HConnect, while HProduce and HService are aimed at efficiency and cost reduction in production and administration.

In November 2024, management introduced the **"Transformation Accelerator"** initiative. This is primarily intended to drive the transformation towards sustainable products and profitable growth. The focus is on optimizing the production network, further efficiency improvements and global technical initiatives, with a particular focus on the cement network in Western Europe. The initiative is expected to contribute €500m annually to earnings by the end of 2026. As HEI is seen as a cost savings benchmark in the industry,³⁶ we believe that this initiative is likely to be a success.

A new initiative is intended to reduce costs on the future

³⁶ Olivares, Fabrizio. "Heidelberg Materials – Strategic Growth & Margin Outlook"

As Heidelberg Materials not only appears to be aware of all these changes in the construction materials industry with regard to digitalization and sustainability, but is also proactively addressing them, we believe that the company is well positioned for the future, not only to keep pace with its competitors, but also to be seen as a pioneer in the construction materials industry in the future.

Number of production plants

Heidelberg Materials operates a vast network of production sites worldwide, which are pivotal to the company's strategy for maximizing capacity as a key value driver.

The company has approximately **130 cement plants**, around **130 quarries** and aggregate pits (segment aggregates), nearly **1,310 ready-mixed concrete production facilities** globally and a further **600 joint ventures** (according to the annual report, the majority comprises aggregates and concrete plants, for simplicity, we assume an equal split between the two) and a 50% share of own production, which results in 300 own plants). This extensive network enables HEI to respond effectively to market demand, utilizing its large-scale production capabilities to maintain and grow its market share across different regions. Heidelberg Materials' plants are strategically located near key markets, optimizing production to serve local demand within **200 km for cement** and **100 km for aggregates**, ready-mixed concrete, and asphalt, ensuring cost-effective distribution and rapid market response.

The **total number of plants has declined over time**, driven by portfolio optimization, which regularly involves the sale or closure of locations. We believe this trend will continue in the next few years. After, it will turn around in order to meet the rising demand for sustainable construction materials products and the resulting new production requirements.

Average tons sold per plant

As already mentioned, the total number of tons sold at Heidelberg Materials is subject not only to cyclical fluctuations, but also to a variety of global influences, particularly in the real estate and construction sectors. Currently, **sales figures are still below the level before the Covid-19 pandemic** and have been affected by various factors in recent years, as described above.

We expect a **slight, continuous improvement in tons sold per plant**, driven by portfolio optimization and new initiatives. Heidelberg Materials is undertaking significant projects to **expand and modernize production capacity**, with a strong focus on sustainability. These efforts not only enhance output per plant but also

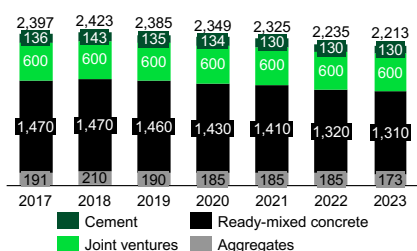


Figure 17: Development in number of production plants

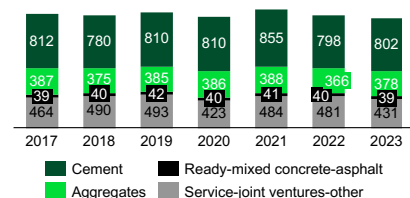


Figure 18: Development in output per plant per segment (in thousand metric tons)

ensure alignment with sustainable practices and regulations, reinforcing the company's long-term value creation potential.

Price per ton sold

In order to forecast unit prices per metric ton, we focus on the company's three main product categories: cement, aggregates and ready-mixed concrete & asphalt. As no more precise split is available for the last category, we consider ready-mixed concrete and asphalt together. Heidelberg Material's business model is exposed to the raw material price volatility, so the price set by the company is primarily driven by the input prices. In the construction material industry, there is no significant potential for differentiation, which means that the demand is only impacted by the pricing of the product, which means that sometimes not all of the price increases can be forwarded to the customer as an increase in the price of the final product. However, due to the large number of locations worldwide and the solid standing in the industry, the average unit prices of HEI show moderate growth with a **CAGR of 5.4% for cement, 4.6% for aggregates and 5.2% for ready-mixed concrete & asphalt** over the historical period.

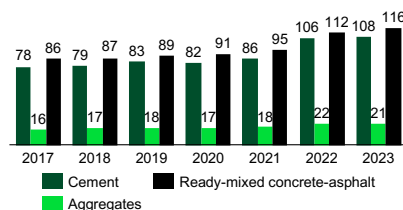


Figure 19: Development of revenue per ton per product group (in €)

According to industry experts, 2024 was a challenging year for cement and concrete manufacturers, characterized by falling prices, and further price declines are expected over the next two years.³⁷ Nevertheless, we believe that Heidelberg Materials will be able to leverage its strong market position after this period to implement strategic, however, moderate, price increases, as it has successfully done in the past. Given the current difficult situation in the industry, **we expect prices to continue to fall until 2026, but to rise moderately thereafter**, driven by the shift to a more sustainable business model and an associated price premium. From 2030, more and more competitors will also be able to offer sustainable cement and concrete on a large scale, which is why the price level will decrease and remain slightly above the ECB's long-term inflation target of 2%. We project equal growth for cement and aggregates, with slightly slower growth for ready-mixed concrete -asphalt until 2030.

Business performance and margin progression

Between 2017 and 2023, sales of Heidelberg Materials grew with a **CAGR of approximately 3.5%**, with an **average EBITDA margin of 18.9%** (disregarding 2020, as the margin was negative).

³⁷ Pissort, Mathieu, "Low-CO2 & Recycled Ready-mix Concrete – Road to Adoption"

Despite an expected decline in sales in the next two years (after which sales will grow steadily, mainly due to rising costs), we expect the EBITDA margin of Heidelberg Materials to increase slightly in these two years, mainly due to cost-cutting measures such as the “Transformation Accelerator”. However, we do not expect the company to achieve its **target of a 22% EBITDA margin by 2025**. In the upcoming years, HEI should have a competitive advantage due to its focus on more sustainable products, which will have a positive impact on margins. However, this is more and more offset due to increasing price pressure and a growing number of competitors in growth regions such as Asia. Moreover, in the long term, it is expected that other competitors will also increasingly focus on sustainability and that this advantage will therefore diminish. Therefore, we forecast a slight decline in the EBITDA margin to just under 19% over the period.

While revenues are rising, margins will fall in the long term due to price pressure and a shrinking competitive advantage

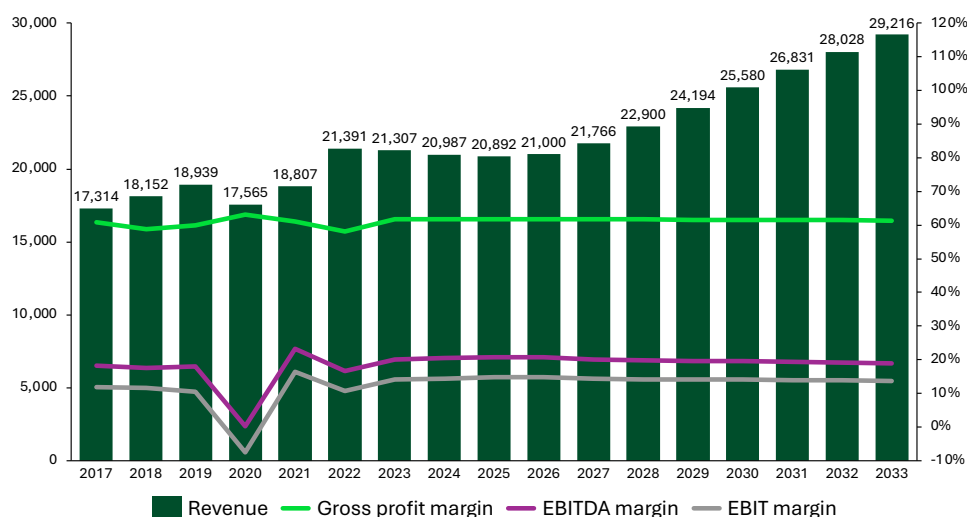


Figure 21: Revenue as well as margin development

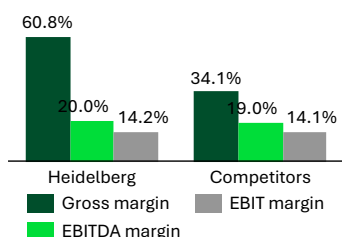


Figure 20: Margin comparison (2023)

Compared to its peer group, Heidelberg Materials is within the range and slightly above the competitor median with an **EBITDA margin of 20.0%** (competitor: 19.0%) and an **EBIT margin of 14.2%** (competitor: 14.1%). The large difference in the gross margin can be explained by a different accounting policy in Germany, especially as the remaining margins are in line.

Capital expenditures

Capex is mainly driven by investments for the production of sustainable cement

In the past, **capital expenditure (capex) has ranged between 6% and 8% of sales**, with a peak in 2021, with a slightly increasing trend visible. This results in approximately €1.5bn annually over the historical period to ensure efficient operations and alignment with market demands. The company plans to invest an additional amount of **€1.74bn until 2030 for the production of sustainable cement**, which is why we expect a slight increase in capex from 2024 onwards. At

the same time, we believe that the ongoing modernisation and efficiency improvements, the extensive production infrastructure, as well as the ambitious sustainability targets mentioned above, will have a lasting impact on capex, which means that we expect it to rise. When looking at property, plant and equipment, we see a slight upward trend, although this was very much interrupted by Covid-19, which is why the amounts are not at the pre-pandemic level until 2023. Finally, and due to the focus on sustainability and the associated investments, we expect capex to increase moderately over the next few years. in line with the portfolio optimization strategy and the aforementioned “Transformation Accelerator” strategy, which initially leads to a higher, but slowly decreasing expansion capex. Towards the end of the forecast period and in the long term, we assume that capex will slowly approach a sustainable maintenance investment level.

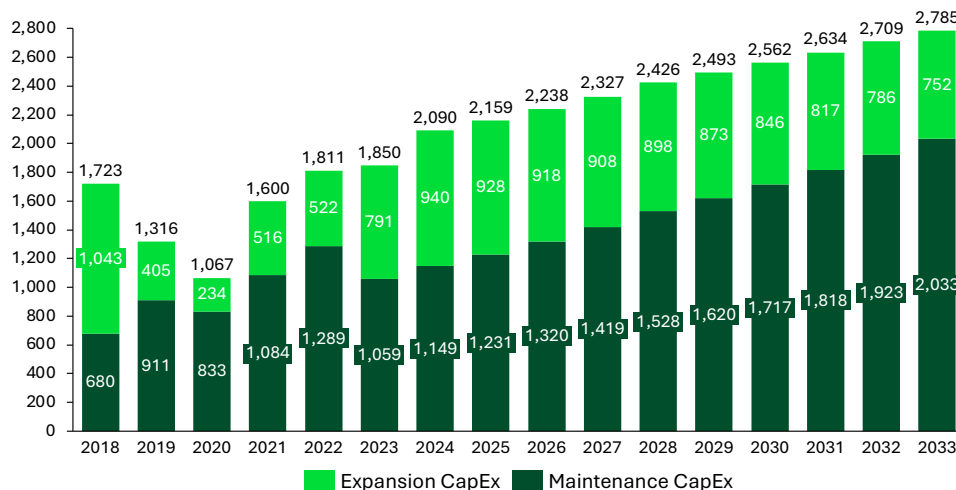


Figure 23: Capex development

Overview of Working Capital Management

Working Capital is a key metric in the analysis of cash management, derives the Cash Conversion Cycle (CCC) and can be benchmarked against industry competitors. To better understand the operational performance of Heidelberg Materials and in order to forecast, we compare its working capital metrics to those of its core peer group.

Heidelberg Materials has high **Days Inventory Outstanding (DIO)**, increasing **from 101 to 119 days** over the historical period. Competitors only increase from 60 to 66 days in the same period. With the shift towards a circular economy, we expect inventory levels to decline in the long term. However, weak demand in the

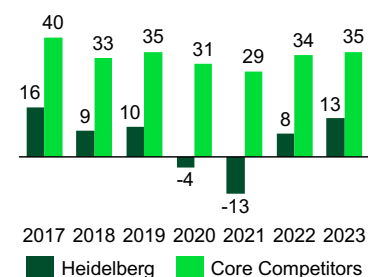


Figure 22: Development of CCC

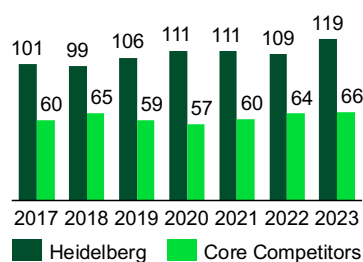


Figure 24: Development of DIO

near term is likely to keep inventories elevated, leading to a modest increase in the average over the next two years, followed by a gradual decrease thereafter.

On the other hand, HEI is very efficient when it comes to collecting money from customers. **Days Sales Outstanding (DSO) fall from 38 to 35**, in the same period the competitors are slightly below from 47 to 40 days. This indicates that Heidelberg Materials is relatively efficient in collecting payments from its customers, contributing to more effective cash flow management. We believe that HEI will be able to maintain this level and even decrease it slightly due to its good standing in the industry.

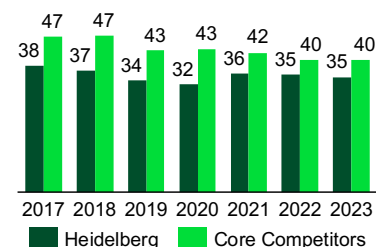


Figure 25: Development of DSO

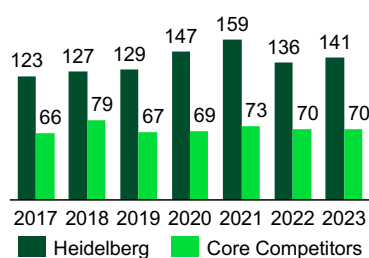


Figure 26: Development of DPO

Additionally, Heidelberg Materials maintains a notably **high Days Payable Outstanding (DPO), averaging 138 days** in the historical period, compared to the peer group average of just 71 days. This suggests that HEI is using its strong market position to extend payment terms with suppliers, thereby optimizing its cash flows. We assume that this will remain unchanged in the future, especially since demand is not expected to increase significantly in the coming years, which offsets Heidelberg Materials strong position with his suppliers. Therefore, we use the 141 days (as of the last period) for the forecast. Overall, this is expected to result in a slightly improved cash conversion cycle of approximately 2 days over the forecasted period, driven primarily by effective working capital management and HEI's strong position within the industry, despite weaker expected market conditions in the near future.

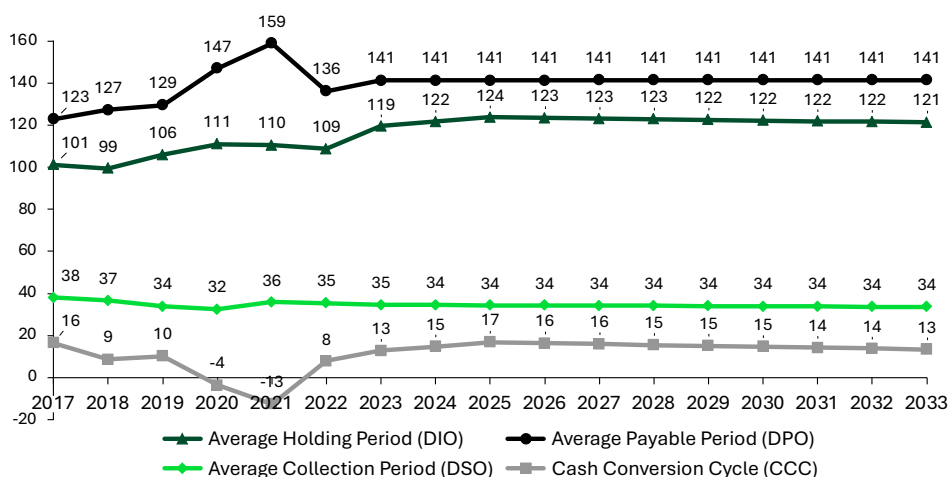


Figure 27: Development of the Cash Conversion Cycle (CCC)

Dividends and Capital Structure

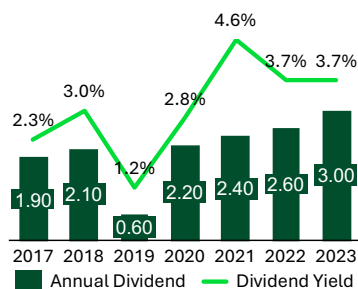


Figure 28: Development of Dividend and Dividend Yield

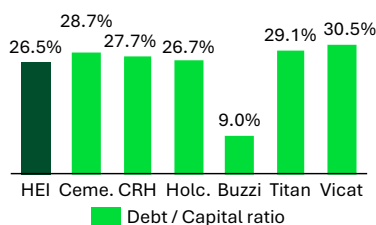


Figure 29: Comparison of Debt to Capital ratio

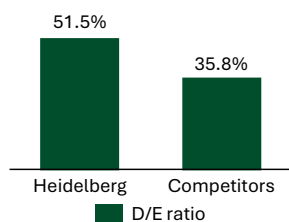


Figure 30: Comparison of D/E ratio

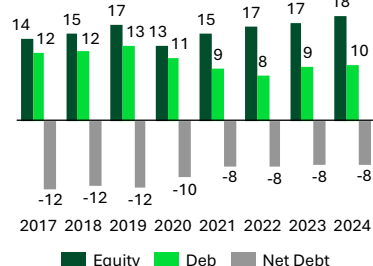


Figure 31: Equity, Debt and Net Debt development

Heidelberg Materials pursues a progressive dividend policy with the aim of increasing the dividend annually, which is why in 2023 the company increased the dividend for the fourth year in a row, from €2.60 in the previous year to **€3.00 per share**.

In cyclical sectors such as building materials, a progressive dividend policy signals stability, which is attractive to investors in the long term. The medium-term target for the payout ratio is approx. 40%. As HEI also has a large number of free-float shareholders we do not expect any changes to the current dividend policy in the future.

With 26.5%, the debt-to-capital ratio is in line with the market average compared with its competitors. Since HEI placed two green placements in the course of the year (each with a volume of €700m and €500m), making them the first European producer in the construction materials industry to do so, we believe they are well positioned financially for the future. In term of debt-to-equity ratio, HEI is above its competitors, which is why we assume that the ratio will fall and align somewhat over the next few years. This development can already be seen in the historical figures.

Valuation

To value Heidelberg Materials, we applied a comprehensive set of valuation methodologies. For the direct valuation of the company, we conducted a **Discounted Cash Flow (DCF)** analysis and a **Dividend Discount Model (DDM)**. Additionally, an **Adjusted Present Value (APV)** analysis was performed. Given our expectation that the company's future capital structure will be based on a Debt-to-Equity ratio, the DCF analysis is considered more relevant, as the APV model assumes a fixed debt level, which we view as an unlikely scenario. To establish a conservative baseline valuation, we conducted a **Leveraged Buyout (LBO)** analysis. Beyond direct valuation methods, we employed relative valuation approaches, including **Comparable Company Analysis (CCA)** and **Comparable Transaction Analysis (CTA)**, to benchmark the company's value against peer companies and recent market transactions. To enhance the robustness and reliability of our valuation framework, we also incorporated a **Monte Carlo simulation**.

WACC

The weighted average cost of capital (WACC) is a result of weighting its components, cost of equity and cost of debt, according to the company's capital structure. Applying the components as outlined below results in a **WACC of 6.7%**.

▪ Cost of equity

The dual approach to calculating the cost of equity produces a result of 8.9%.

For Heidelberg Materials, we see a peer group beta as the better choice. Heidelberg Materials operates in a market that is highly dependent on the general economy and infrastructure projects. Here, the peer group beta offers a better and more stable overall assessment of the market risk, especially as there are well comparable peers. We use the same competitors for this as for the CCA and derive at a **beta of 1.2x**. KPMG recommends a market risk premium of 6.75% for Germany.³⁸ However, we also calculated an alternative version based on the 10-year German government bond yield of 2.13% (sourced from Capital IQ) and a market return derived from the average annual DAX40 performance over the past 10 years, amounting to 6.6% and finally resulting in a market risk premium of 4.6%. By averaging this with KPMG's recommendation, we arrive at a **market risk premium of 6.8%**. Using the CAPM formula, we therefore obtain **cost of equity of 8.9%**. This dual approach minimizes reliance on a single source and reduces potential bias.

▪ Cost of debt

Cost of debt was determined based on the market yield of the company's most recent bonds.

For the cost of debt, we looked at the last five issued bonds from HEI. Each bond is a corporate note and senior unsecured. We calculate an average **current market yield of 3.1%**, and use this as the cost of debt. For the tax rate, we took the average of the effective tax rate of the last 5 years (with the exception of 2020, as this value was negative, and we therefore do not consider it to be meaningful). Therefore, the **tax rate is 24.9%** and the **cost of debt after tax is 2.3%**.

Discounted Cash Flow Analysis

The Discounted Cash Flow (DCF) analysis is a common valuation method that estimates the present value of an asset by discounting its expected future cash flows back to their present value using a discount rate that reflects the riskiness of these cash flows. This approach is grounded in the principle that the value of an asset is the present value of the expected cash flows it will generate over time. Part of a valuation using the DCF is the determination of the Terminal Value to

³⁸ KPMG, „Market risk premium as at 30/09/2024”

account for the value of all cash flows after the forecast period. A common methodology, and the one used in this valuation of Heidelberg Materials, is the **Gordon Growth Model (GGM)**.³⁹ As the appropriate discount rate of HEI, we have used the WACC derived in the previous section, reflecting HEI's specific capital structure in the calculation. The DCF requires a calculation of the Free Cash Flows of a company, which have been conducted using the **reformulated financial statements** and are a result of the Core result, Change in Core Invested Capital, Non-core result and Change in Non-Core Invested Capital.

For the terminal growth rate, we assumed the long-term growth to be in line with the ECB's **long-term inflation target of 2%**,⁴⁰ but, additionally, also considered the company's **RONIC**. The Terminal Value in our DCF analysis accounts for just **59% of the Enterprise Value**, which is attributable to our extended forecast period. This makes the result of the DCF more accurate overall. The valuation of the Free Cash Flows provides the value of the Core business, while the Non-core business was considered by adding the Non-core Invested Capital to the value from the DCF. Afterwards, the Net financial assets were deducted to account for net debt to compute the value of the equity and the share price. The number of shares outstanding considered for the computation of the share price is derived under the assumption that the **current share buyback program is finalized**, using an average share price of €125.60. Finally, **the share price for Heidelberg Materials resulting from the DCF analysis is €135.24**, suggesting a slightly higher share price than the current level.

The DCF analysis results in a share price of €135.24

Sensitivity Analysis

As the previously calculated variables in the valuation methodologies can significantly change the final share price, we use several scenario analyses to estimate the impact of a change in those variables. For the WACC, we have identified the **cost of equity and the levered beta as major influencing factors**. The beta in particular offers a large variance, which is why we base it on the median of HEI's peer group in order to avoid distortion from statistical outliers.

³⁹ Damodaran, Aswath. "Valuation Approaches and Metrics: A Survey of the Theory and Evidence"

⁴⁰ ECB, "Inflation and consumer prices"

		Cost of Equity							Beta levered				
		6.9%	7.9%	8.9%	9.9%	10.9%			0.7x	1.0x	1.2x	1.5x	1.7x
D/(D+E) ratio	24.34%	5.8%	6.6%	7.3%	8.1%	8.8%	D/(D+E) ratio	24.34%	5.2%	6.3%	7.3%	8.4%	9.5%
	29.34%	5.6%	6.3%	7.0%	7.7%	8.4%		29.34%	5.0%	6.0%	7.0%	8.0%	9.0%
	34.34%	5.4%	6.0%	6.7%	7.3%	8.0%		34.34%	4.8%	5.7%	6.7%	7.6%	8.5%
	39.34%	5.1%	5.7%	6.3%	6.9%	7.6%		39.34%	4.6%	5.5%	6.3%	7.2%	8.0%
	44.34%	4.9%	5.4%	6.0%	6.6%	7.1%		44.34%	4.4%	5.2%	6.0%	6.8%	7.6%

Figure 32: Sensitivity analysis WACC

The same applies to the DCF, where **terminal growth and WACC in particular have a strong influence on the share price**, while the impact of RONIC is comparatively lower. A higher WACC, and therefore a higher discount rate, results in a significantly lower share price. The strongest impact of this change is on the Terminal Value, which accounts for a large part of the Enterprise Value and consequently the share price. The RONIC is considered in the determination of the Terminal Value and has only a slight impact on the implied share price – a higher RONIC implies a higher share price.

		Terminal Growth							Terminal Growth				
		1.0%	1.5%	2.0%	2.5%	3.0%			1.0%	1.5%	2.0%	2.5%	3.0%
WACC	5.67%	162.6	168.7	176.3	186.5	200.4	RONIC	7.65%	128.1	129.5	131.1	133.2	135.9
	6.17%	144.6	148.5	153.4	159.5	167.6		8.15%	129.0	130.9	133.3	136.3	140.0
	6.67%	129.8	132.2	135.2	139.0	143.7		8.65%	129.8	132.2	135.2	139.0	143.7
	7.17%	117.3	118.8	120.6	122.8	125.4		9.15%	130.5	133.4	137.0	141.4	147.0
	7.67%	106.7	107.6	108.5	109.6	111.0		9.65%	131.1	134.4	138.5	143.5	149.9

Figure 33: Sensitivity Analysis DCF

With a constant WACC, the share price is most dependent on the terminal growth rate as this impacts the Terminal Value. In our approach, we use a conservative terminal growth rate in line with inflation expectations of 2% and refrain from assuming long term growth higher than the economic forecast.

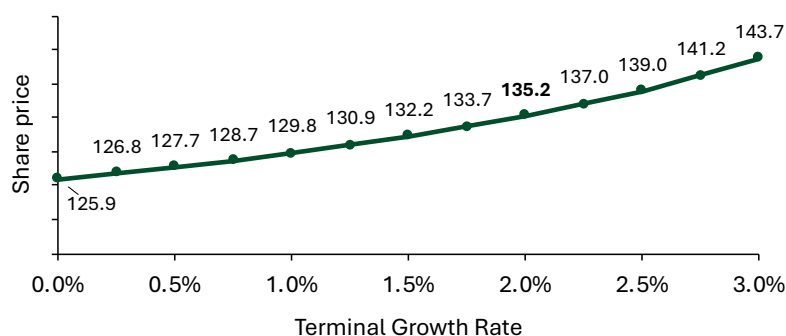


Figure 34: Development of share price depending on the terminal growth rate

Scenario Analysis

The first scenario leads to a share price of €163.62

The second scenario (based on projected market growth by region) leads to a share price of €147.19

Currently, there is a race in the construction materials sector to be the first company who does produce net-zero cement or concrete. Industry experts believe that there will not be that many net-zero plants before 2030, which will give those players, who are able to manufacture those products, a sustainable premium on the price of those products. Heidelberg Materials assumes in the Q3 2024 Trading Update that they will be the first in the market to offer carbon-captured net-zero cement and concrete in H1 2025. This is an underlying assumption for our scenario analysis. Industry experts assume a price per ton of cement incl. premium of up to €130-€150. Some analysts even expect a tripling of the current cement price.⁴¹ We believe this is too optimistic and assume a **price CAGR of 2.8%** from FY24 to FY32 instead of the previous 2.3%, resulting in a **cement price per ton of €138 by 2033**. We leave all other input factors unchanged to better measure the price effect. This grows at an above-average rate until 2030 and then slowly declines as more sustainable production facilities are expected from this year onwards. This leads to a **share price of €163.62**.

As a second scenario, we have calculated **top-down sales based on estimated market growth by region**. However, in our opinion, the market research reports are too positive about the current situation in the industry and the next two years. The second scenario would result in a **share price of €147.19**. Both scenarios highlight significant future upside potential driven by the focus on sustainable products and their price premium. However, we find them imprecise, as sustainable production requires substantial investments, for which reliable cost data is currently unavailable.

Comparable Company Analysis

Heidelberg Materials is a leading global player in the building materials industry, with a primary focus on cement, concrete, and aggregates. For our core peer group, we have selected competitors that closely align with HEI's product range and share a similar geographical and international footprint. This group includes Cemex, Holcim, and CRH, which are **comparable in size, product portfolio, and global reach**. Additionally, we have identified companies like Vicat, Titan Cement and Buzzi, which are also international players but have a stronger focus on Europe, reflecting HEI's home market. To ensure a comprehensive valuation and avoid potential bias, we have established a second peer group comprising companies operating in the same industry and geographical regions but with a less direct competitive relationship to Heidelberg Materials. Given the strong link

⁴¹ JPMorgan, "Heidelberg Materials" / Pissort, Mathieu, "Low-CO2 & Recycled Ready-mix Concrete – Road to Adoption"

between the building materials sector – particularly the concrete and cement segments – and the construction industry, we have also included a third reference group of construction companies to capture the broader market dynamics.

We consider the **valuation level for the coming year as balanced without major changes**. On one hand, the increased focus on sustainable products and technology supports higher valuations. However, this is offset by risks in the construction sector, including economic volatility, uncertain demand outlooks and growing margin pressure, particularly in Asia. Considering the core peer group, we arrive at a **median EV/EBITDA of 6.1x** and thus a share price of **€109.56**. **EV/EBIT of 8.3x** results in a slightly lower share price of **€104.43**, while the **EV/Revenue multiple of 1.5x** results in a higher value of **€131.47**. The **P/E multiple of 13.6x** yields a share price of **€110.13**. Both control groups result in a higher EV/EBITDA multiple: **building materials of 9.3x and construction of 8.9x**. This makes sense insofar as the companies in both groups are more diversified and can operate in other, higher-growth segments, which in turn leads to higher multiples. Cement manufacturers are also generally more cyclical as they are less diversified than other construction materials player, which leads to lower multiples. We therefore consider the CCA to be meaningful as a number of good comparative companies exist. Further details can be found in Appendix 3.

The average of the CCA results leads to a share price of €113.90

Comparable Transaction Analysis

Transaction-based multiples are determined using the prices paid for comparable companies in M&A transactions in recent years. These multiples capture the value that buyers are prepared to offer for a company, incorporating potential **synergies, premiums, and discounts** that may result from the deal. To obtain a realistic valuation, the focus was on transactions in the construction materials industry with a focus on manufacturers of cement and aggregates of the last 3 years, with target companies around the world to reflect the global setup of Heidelberg Materials. To account for the size of HEI, we focused on transactions with a minimum size of €45m. A total of 20 transactions were identified. Notably, the **median EV/EBITDA multiple over the past two years is 8.7x** (with an average deal size of €534m), compared to a **higher median of 10.0x over the last three years** (average deal size: €642m). This indicates not only a decline in valuation multiples but also a decrease in average transaction sizes. These trends highlight the reduced market value of building materials companies, particularly in the cement sector, reflecting the challenging market environment in recent time.

The multiple paid for transactions has decreased over the last few years

The CTA analysis reveals a share price of €172.09

To derive a more accurate valuation, we focus on the **median EV/EBITDA multiple** from the last two years, as it reflects more recent transaction data and is

therefore more accurate. The EV/EBITDA multiple, identified as the most meaningful as it was the most frequently multiple reported, results in an **indicated share price of €172.09**. This figure is higher than the CCA valuation, which is justified by the control premium inherent in transactions. We recognize the CTA less relevant for valuation purposes, as the transactions involve significantly smaller companies with less international activity compared to Heidelberg Materials, making them less comparable due to the industry's structure. Please see appendix 4 for further details.

Dividend Discount Model

A valuation methodology, **valuing the equity** of the company is the Dividend Discount Model (DDM), where future expected dividends are discounted using the cost of equity as the appropriate discount rate³⁵. The company states that it will be targeting a **payout ratio of 40%** in the future, implying that 60% of the profit attributable to Heidelberg Materials shareholders will be reinvested in the company to drive growth while the remainder is paid out to investors. For this reason, the terminal value is based on a growth rate of 4.9%, which can be derived from multiplying the share of profits remaining in the company with its Return on Invested Capital (ROIC). Additionally, we considered the current **share buyback program of €1.2bn throughout FY24 – FY26**, of which the first tranche of around €400m will be finalized in FY24. Further, we made the likely assumption, that HEI, due to its strong focus on shareholder value, will introduce **another share buyback program of €1.5bn in FY27 with a maturity of three years**. The share price suggested by this analysis is **€83.12**, which is significantly lower than the current share price.

The DDM indicates a share price of €83.12

Adjusted Present Value Analysis

The Adjusted Present Value (APV) analysis divides the valuation into two components: the present value of the operations of the business as if the business was entirely equity financed (unlevered) and the present value of financing effects and, therefore, the present value of the tax shield⁴². This valuation methodology is conventionally used, when debt (in absolute terms) can be forecasted with high certainty or remains at the same level. In our case, however, we forecast our debt as a reducing Debt-to-Value ratio, which is why we put less weight on the result of the APV analysis. For the valuation of the operations, the unlevered free cash flows were discounted using an **unlevered cost of capital of 7.11%**. This is based on the unlevered beta of the company's peer group. We assumed the debt to remain

The APV analysis results in a share price of €71.74

⁴² Damodaran, Aswath, "Investment Valuation: Tools and Techniques for Determining the Value of Any Asset"

at the level of FY 2025 moving forward, allowing for the computation by multiplying the tax rate with the amount of debt. The resulting **share price of this methodology is €71.74**, which we, due to its low relevance, do not consider in our derivation of the target share price.

Leverage Buyout Analysis

The Leverage Buyout (LBO) analysis helps to assess the maximum price a potential financial sponsor can pay for Heidelberg Materials while achieving a satisfactory return on its investment. Therefore, the analysis establishes a baseline valuation in our valuation of the company. Larger transactions often have a lower **Internal Rate of Return (IRR)** due to their perceived lower risk profiles, stemming from factors like stable cash flows and established market position. This is the reason why we use a threshold (IRR) of 15%, which is at the lower end of the industry-typical threshold of 15-20%, as this is usually the typical threshold for an acquisition to be deemed attractive.⁴³

The LBO analysis suggests a share price of €85.59

For **leverage**, we assume a **multiple of 4.0x**, which we consider as standard for the industry. We calculate with three term loans, where the interest is based on the 6-month EURIBOR rate (as of December 2024) plus a risk-adjusted margin. For better accuracy, we assume a holding period from 2025 to 2033, corresponding to the end of the planning period. An IRR of 15% (and an indicated MoM of 3.1x) results in a **share price** for Heidelberg Materials of **€85.59**, which we consider to be the lower limit of our valuation.

Monte Carlo Simulation

Share prices are influenced by numerous random and unpredictable factors, such as market volatility, interest rate changes and geopolitical events. Therefore, we use a Monte Carlo analysis to simulate potential extreme values (e.g. strong price losses or gains) and their probability distributions for future share prices, based on historical price volatility. We simulated the price of Heidelberg Materials shares over a one-year period (assumption: 252 trading days), based on 10,000 simulations using daily closing prices from the past 20 years (since January 1, 2004). We ran the simulation 10,000 times in order to minimize fluctuations in earnings and to achieve robust results. The results indicate a smallest simulated closing price of €35.8 and a highest simulated closing price of €543.6, with an **average closing price of €146.6**. The analysis shows that there is a 59.7% probability of the closing price exceeding the last closing price and a 40.3% probability of it falling below the closing price. These results suggest an upward

The Monte Carlo Simulation suggests a share price of €146.6 in Dec 2025

⁴³ Pearl, Joshua/Rosenbaum, Joshua, "Investment Banking"

potential in share price performance, while also reflecting the inherent uncertainties in market dynamics. Graphical evaluations can be found in appendix 5. We consider the simulation as less meaningful as it is fully based on share price development in the past without taken qualitative factors into account.

Recommendation

Based on our analyses, we arrive at a **target price** for Heidelberg Materials of **€126.62**. We weight the DCF analysis with 60%, as the forecast was developed in the greatest detail and most of the relevant information was incorporated here. CCA, CTA, LBO and DDM analysis are each weighted at 10%. In order to compensate for small fluctuations in the valuation level, we indicate the share price with a 10% premium and discount in each analysis. Including an **expected dividend of €3.19** and considering the **current share price of €125.60**, we see an **upside potential of 3.35%**. Our analysis suggests that the market may be assessing the potential of the company correctly. HEI has a very good position in the industry and reacts proactively to emerging trends and developments in the sector, but this is clouded by a moderate market outlook for the next few years, various risks and the generally low valuation level in the cyclical construction materials industry. Moreover, due to the very strong performance of the share price YTD, we believe that the focus on sustainability, and therefore a future competitive advantage, is now priced in. Therefore, our final recommendation for the Heidelberg Materials AG stock is **Hold**.

A target share price of €126.62, combined with an expected dividend of €3.19 in 2024, represents a 3.35% upside potential

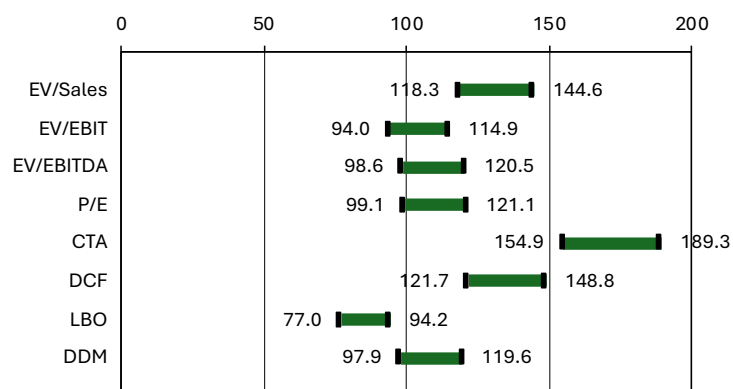


Figure 35: Footballfield of the valuation range

Appendix

Appendix 1: Overview of the managing board

Name	Role	Board member since	Appointed until	Nationality	Birth year
Dr Dominik von Achten	Chairman of the Board	2007	Jan 25	German	1965
René Aldach	Chief Financial Officer & Australia	2021	Aug 29	German	1979
Roberto Callieri	Asia	2024	Dec 26	Italian	1963
Axel Conrads	Chief Technical Officer	2024	Jan 27	German	1975
Hakan Gurdal	Africa-Mediterranean-Western Asia	2016	Jan 29	Turkish	1968
Dr Nicola Kimm	Chief Sustainability & New Technologies Officer	2021	Aug 24	Canadian/ German	1970
Dennis Lentz	Chief Digital Officer	2021	Aug 29	German	1982
Jon Morrish	Europe	2016	Jan 29	British	1970
Chris Ward	North America	2019	Aug 28	American	1972

Appendix 2: Overview of YTD 2024 M&A deals of Heidelberg Materials

Announced Date	Type	Target	Target Country	Description
28.11.24	Acquisition	Giant Cement	USA	US-based manufacturer of cement, concrete and aggregate. Transaction value of €569.85m
30.07.24	Acquisition	Carver Sand & Gravel	USA	Sand & gravel supplier.
16.07.24	Acquisition	Highway Materials	USA	A construction materials company.
16.07.24	Acquisition	Victory Rock	USA	Producer of high-quality aggregates for concrete and asphalt.
15.07.24	Acquisition	Moroni SA	France	Company specialized in the extraction, processing and sale of sand, gravel and construction materials.
01.07.24	Acquisition	Aaron Materials	USA	Concrete recycler and materials producer.
17.05.24	Acquisition	Bristol & Avon Transport & Recycling	UK	Construction soil and aggregate recycling company.
05.04.24	Sale	Hanson Quarry Products Europe	UK	Ready mix concrete and aggregates production, supply and distribution business including three quarries and four concrete plants.
05.04.24	Sale	Mining Assets (Needingworth Quarry)	UK	Mining assets.
29.01.24	Acquisition	Smiths Concrete	UK	Manufacturer of ready-mixed concrete and mortar, the extraction of sand and gravel and the operation of a land-fill site for household and commercial waste.
11.01.24	Sale	Heidelberg Materials (Transport operations)	France	Transport operations in Airvault, France.
11.01.24	Sale	Heidelberg Materials (Transport operations)	France	Transport operations in Beaucaire and Bussac, France.

Appendix 3: Overview of the CCA results

<i>in €m</i>	Market Cap	Net Debt	EV	EV/Revenue	EV/EBITDA	EV/EBIT	P/E
Cement producers							
Buzzi S.p.A.	7,056	-537	6,519	1.5x	5.4x	6.7x	7.3x
CEMEX, S.A.B. de C.V.	7,628	6,357	13,985	0.9x	5.1x	7.5x	46.3x
Holcim AG	54,059	11,331	65,390	2.3x	10.3x	14.2x	16.4x
Vicat S.A.	1,624	1,585	3,209	0.8x	4.8x	7.5x	6.3x
CRH plc	63,799	11,233	75,032	2.4x	13.5x	18.5x	22.2x
Titan Cement International S.A.	2,878	669	3,548	1.4x	6.8x	9.1x	10.7x
Average				1.5x	7.7x	10.6x	18.2x
Median				1.5x	6.1x	8.3x	13.6x
Building materials							
James Hardie Industries plc	14,133	765	14,898	4.3x	17.0x	20.8x	30.0x
Compagnie de Saint-Gobain S.A.	44,777	9,443	54,220	1.1x	8.3x	10.7x	16.8x
Kingspan Group plc	12,950	1,757	14,708	1.8x	14.5x	17.5x	20.2x
Sika AG	40,140	6,152	46,292	3.8x	20.4x	24.6x	35.2x
Wienerberger AG	3,033	1,880	4,913	1.2x	7.0x	10.3x	9.1x
Etex N.V.	1,094	1,174	2,268	0.6x	3.2x	4.9x	4.1x
Rockwool A/S	7,329	-455	6,874	1.9x	9.3x	12.9x	18.8x
Imerys S.A.	2,418	1,794	4,212	1.1x	8.4x	15.9x	47.1x
Breedon Group plc	2,878	669	3,548	2.1x	13.1x	20.0x	23.7x
Average				2.0x	11.3x	15.3x	22.8x
Median				1.8x	9.3x	15.9x	20.2x
Construction							
Acciona, S.A.	6,270	8,240	14,510	0.8x	10.2x	20.2x	11.6x
ACS	0	0	0	0.4x	12.9x	19.0x	15.6x
Bouygues SA	0	0	0	0.4x	5.3x	11.3x	10.4x
Vinci SA	0	0	0	1.2x	7.5x	10.4x	12.2x
Skanska AB (publ)	0	0	0	0.6x	16.3x	23.0x	18.5x
Strabag SE	0	0	0	0.2x	3.2x	5.8x	7.7x
Average				0.6x	9.2x	15.0x	12.7x
Median				0.5x	8.9x	15.2x	11.9x

Appendix 4: Overview of the CTA results

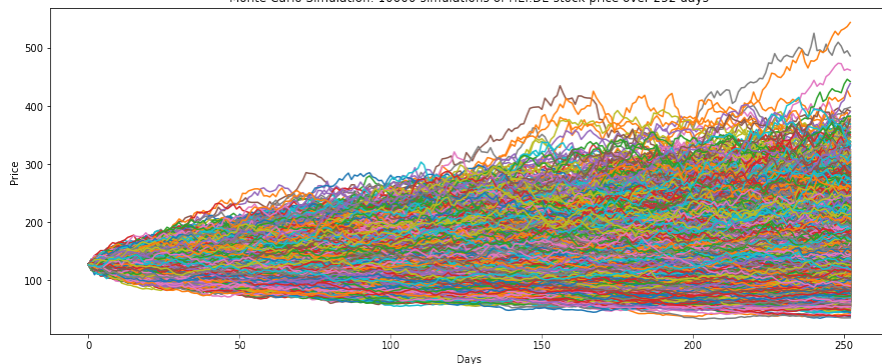
Target Company	Country	Buyer Company	Seller Company	Announced Date	EV (€m)	Net Debt (€m)	Implied Equity Value (€m)	EV/Sales	EV/EBIT	EV/EBITDA	Deal Value (€m)	Target Description
Lafarge Africa	Nigeria	Huaxin Cement Co	Holcim	01.12.24	894	-52	946	2.9x	11.4x	9.4x	946	Manufacturer and marketer of cement, aggregates and ready mix concrete.
Summit Materials	USA	Quikrete Holdings	Vanguard, Cementos Argos	25.11.24	11,377	1,954	9,423	3.5x	28.9x	16.2x	11,377	Producer and seller of heavy-side construction materials and related downstream products.
Mannok Holdings DAC (94.7% Stake)	Ireland	Cimsa Cimento	Silver Point Capital	28.08.24	330	n.a.	330	1.1x	n.a.	5.7x	313	Manufacturer of cement, downstream cement products, insulation materials, and recycled plastic packaging products.
Siam City Cement plc (53.66% Stake)	Thailand	Sunrise Equity	Jardine Cycle & Carriage	16.08.24	1,628	385	1,243	1.6x	14.7x	8.6x	1,052	Manufacturer of cement, such as mixed cement and portland cement.
Bamburi Cement plc	Kenya	Amsons Group	Holcim	10.07.24	138	-31	170	1.1x	19.6x	8.7x	170	Cement manufacturer.
China-Africa Jidong Construction Material	China	Tangshan Jidong Cement Co.	Jidong Development Group, China-Africa Development Fund	27.04.24	65	n.a.	65	n.a.	n.a.	n.a.	65	Cement maker.
CEMEX Holdings Philippines	Philippines	DMCI; Semirara Mining & Power; Dacon	Cemex SAB de CV	25.04.24	691	381	309	2.3x	n.a.	n.m.	691	Manufacturer of cement.
BMC Enterprises	USA	Breedon Group	n.a.	06.03.24	276	n.a.	276	1.7x	n.a.	8.5x	276	Provider of ready-mix concrete manufacturing
CSR	Australia	Compagnie de Saint-Gobain	n.a.	21.02.24	2,698	94	2,605	1.7x	21.4x	15.2x	2,698	Building and construction materials company.
ADBRI Ltd (57.25% Stake)	Australia	CRH; Barro Group	n.a.	18.12.23	1,751	466	1,285	1.6x	30.8x	12.8x	1,202	Manufacturer of cement & lime.
Daiken Corp (63.66% Stake)	Japan	Itochu Corp; BP Investment	n.a.	10.08.23	557	64	493	0.4x	9.0x	5.2x	378	Manufacturer of building materials and construction parts.
Oman Cement (59.58% Stake)	Oman	Huaxin Cement Co	Sultanate of Oman	13.03.23	199	-104	303	1.2x	14.5x	6.2x	180	Cement manufacturing company.
Eagle Cement Corporation	Philippines	San Miguel Corp	Private Individuals; Far East Holdings	04.10.22	1,686	-205	1,892	3.8x	15.4x	12.8x	1,892	Listed Philippines-based company engaged in manufacturing, marketing, sale and distribution of cement
Semen Baturaja PT	Indonesia	PT Semen Indonesia (Persero) Tbk	Republic of Indonesia	30.06.22	404	76	328	3.4x	27.5x	15.5x	404	Listed Indonesia based cement producer
Cembrit Holding	Denmark	Swisspearl Group	Solix Group	21.06.22	594	n.a.	594	2.1x	16.5x	10.6x	594	Denmark-based manufacturer and distributor of fibre-cement products
Ambuja Cements (63.06% Stake)	India	Adani Enterprises	Holcim	15.05.22	8,176	-1,356	9,532	2.3x	14.2x	14.2x	6,011	Cement manufacturer.
Shanxi Huarun Fulong Cements (72% Stake)	China	Tangshan Jidong Cement Co.	China Resources Co	16.12.21	67	n.a.	67	0.9x	4.1x	1.9x	48	China-based cement seller
Calucem doo	Croatia	Cementos Molins	Ambienta SGR	02.08.21	150	n.a.	n.a.	2.6x	n.a.	9.4x	150	Cement manufacturer.
US Concrete Inc	USA	Vulcan Materials Co.	n.a.	07.06.21	1,777	583	1,194	1.6x	28.3x	12.3x	1,777	Producer of ready-mixed concrete and related products.
CHRYSO	France	Compagnie de Saint-Gobain	Cinven	20.05.21	1,020	n.a.	n.a.	2.6x	n.a.	12.0x	1,020	France-based designer and manufacturer of admixtures and additives for concrete, cement and gypsum

Over the last 2 years								1.1x	14.6x	6.1x	
25th percentile											
Average								1.7x	18.8x	9.7x	1,612
Median								1.6x	17.2x	8.7x	534
75th percentile								1.7x	20.9x	9.7x	

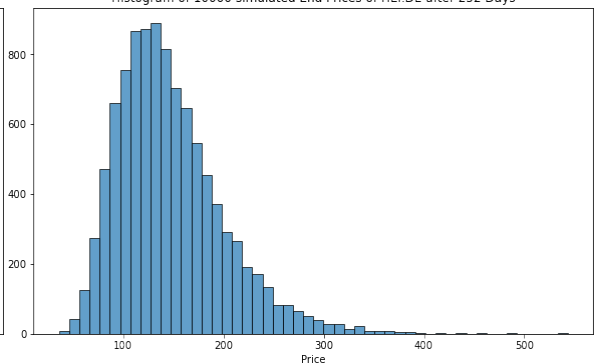
Over the last 3 years								1.4x	14.3x	8.5x	
25th percentile											
Average								2.0x	18.3x	10.3x	1,562
Median								1.7x	15.9x	10.0x	642
75th percentile								2.6x	26.0x	12.8x	

Appendix 5: Results of the Monte Carlo Simulation

Monte Carlo Simulation: 10000 simulations of HEI.DE stock price over 252 days



Histogram of 10000 simulated End Prices of HEI.DE after 252 Days



Sources

- Accenture. "The Circular Economy Could Unlock \$4.5 trillion of Economic Growth, Finds New Book by Accenture". Retrieved from <https://newsroom.accenture.com/news/2015/the-circular-economy-could-unlock-4-5-trillion-of-economic-growth-finds-new-book-by-accenture> on 1. December 2024
- Asian Development Bank. "Economic Forecasts for Asia and the Pacific: September 2024". Retrieved from <https://www.adb.org/outlook/editions/september-2024#:~:text=Growth%20projections%20are%20higher%20for.%2C%20respectively%2C%20from%20April%27s%20estimates> on 1. December 2024
- Bauindustrie. "Fachkräftesituation im Bauhauptgewerbe". Retrieved from <https://www.bauindustrie.de/zahlen-fakten/publikationen/brancheninfo-bau/fachkraeftesituation-im-bauhauptgewerbe> on 1. December 2024
- BDO. "Die EU Taxonomie und ihre Auswirkungen auf die Bau- und Immobilienbranche". Retrieved from <https://www.bdo.de/de-de/insights/aktuelles/advisory-service/die-eu-taxonomie-und-ihre-auswirkungen-auf-die-bau-und-immobilienbranche> on 1. December 2024
- Bidt. "Digitalization index". Retrieved from <https://www.bidt.digital/zahlenmonitor/digitalisierungsindex/> on 7. December 2024
- Damodaran, Aswath. "Investment Valuation: Tools and Techniques for Determining the Value of Any Asset". 3rd ed. Hoboken, NJ: Wiley, 2012
- Damodaran, Aswath. "Valuation Approaches and Metrics: A Survey of the Theory and Evidence". Retrieved from: <https://pages.stern.nyu.edu/~adamodar/pdfiles/papers/valuesurvey.pdf> on 30. November 2024
- European Commission. "Autumn 2024 Economic Forecast: A gradual rebound in an adverse environment". Retrieved from: https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/autumn-2024-economic-forecast-gradual-rebound-adverse-environment_en on 1. December 2024
- European Commission. "Circular Economy Action Plan". Retrieved from https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en on 7. December 2024
- European Commission. "Construction and Demolition Waste". Retrieved from https://environment.ec.europa.eu/topics/waste-and-recycling/construction-and-demolition-waste_en on 7. December 2024
- Eurostat. "Housing in Europe – 2023 edition". Retrieved from <https://ec.europa.eu/eurostat/web/interactive-publications/housing-2023> on 14. Decembr 2024
- Finanzen.net. "November 2024: Das sind die Expertenmeinungen zur Heidelberg Materials-Aktie". Retrieved from https://www.finanzen.net/nachricht/aktien/november-2024-das-sind-die-expertenmeinungen-zur-heidelberg-materials-aktie-14060014?utm_source=chatgpt.com on 14. December 2024
- GlobalData. "Latin America Construction Market Size, Share, Trends, and Analysis". Retrieved from: <https://www.psmarketresearch.com/market-analysis/uae-construction-material-market> on 21. November 2024
- Handelsblatt. "Baurohstoffe Kies und Sand bald wohl noch knapper und teurer". Retrieved from <https://www.handelsblatt.com/finanzen/immobilien/inside-energie-und-immobilien/baumaterialien-baurohstoffe-kies-und-sand-bald-wohl-noch-knapper-und-teurer/28843700.html> on 4. December 2024
- Heidelberg Materials. "Analyst Conference Call – Q3 2024". Retrieved from <https://www.heidelbergmaterials.com/en/investor-relations/financial-calendar/third-quarter-2024-trading-update> on 1. December 2024
- IMF. "World Economic Outlook". Retrieved from: <https://www.imf.org/en/Publications/WEQ> on 21. November 2024
- International Monetary Fund. "Asia and Pacific". Retrieved from: <https://www.imf.org/en/Publications/REO/APAC/Issues/2024/10/31/regional-economic-outlook-for-asia-and-pacific-october-2024> on 1. December 2024
- JPMorgan. "Heidelberg Materials". Europe Equity Research as of 2. November 2023. Retrieved from Capital IQ
- KPMG. "Market risk premium as at 30/09/2024". Retrieved from <https://atlas.kpmg.com/de/en/deal-advisory-services/cost-of-capital-and-multiples/market-risk-premium-and-risk-free-rate> on 14. December 2024
- Kunath, Gero. "China's real estate crisis: government sees cracks in the foundations". Retrieved from: <https://www.iwkoeln.de/studien/gero-kunath-regierung-sieht-risse-im-fundament.html> on 2. December 2024
- Manpower Group. "Skills shortage study 2024". Retrieved from https://www.manpowergroup.de/de/insights/studien-und-research/studien/2024/01/08/14/07/mpg-studie-fachkraeftemangel-2024?utm_source=chatgpt.com&referrer=chatgpt.com on 12. December
- Marketresearch.com. "Europe Construction Materials Market Summary". Retrieved from: <https://www.marketresearch.com/MarketLine-v3883/Europe-Construction-Materials-Summary-Competitive-32197938/> on 21. November 2024
- Mercer Capital. "Construction & Building Materials Industry Segments Experience". Retrieved from: <https://mercercapital.com/what-construction-building-materials-industry-segments-do-you-have-experience-in/> on 5. December 2024

- Mutikani, Lucia. "Smaller US trade deficit supports strong economic growth estimates for third quarter". Retrieved from: https://www.reuters.com/markets/us/us-trade-deficit-narrows-sharply-august-2024-10-08/?utm_source=chatgpt.com on 1. December 2024
- Olivares, Fabrizio. "Heidelberg Materials – Strategic Growth & Margin Outlook". Expert Interview from 6. December 2024. Retrieved from ThirdBridge
- P&S Intelligence. "U.A.E. Construction Material Market Size & Share Analysis". Retrieved from: <https://www.psmarketresearch.com/market-analysis/uae-construction-material-market> on 21. November 2024
- Pearl, Joshua/Rosenbaum, Joshua. "Investment Banking". Third Edition (2020)
- Pissort, Mathieu. "Low-CO2 & Recycled Ready-mix Concrete – Road to Adoption". Expert Interview from 15. October 2024. Retrieved from ThirdBridge
- Precedence Research. "Building Materials Market Size". Retrieved from: <https://www.precedenceresearch.com/building-materials-market#:~:text=The%20Asia%20Pacific%20building%20materials,4.2%25%20from%202024%20to%202034> on 21. November 2024
- PwC. "Die Preise in der Baubranche werden stark anziehen". Retrieved from <https://www.pwc.de/de/real-estate/die-preise-in-der-baubranche-werden-stark-anziehen.html> on 4. December 2024
- PwC. "PwC study on the construction industry 2023". Retrieved from <https://www.pwc.de/de/pressemitteilungen/2023/pwc-studie-zur-baubranche-2023-die-digitalisierung-stockt-in-sachen-nachhaltigkeit-geht-es-voran.html> on 9. December 2024
- Randstad. "What are the causes of the global skills shortage?". Retrieved from <https://www.randstad.at/hr-portal/digitalisierung/was-sind-die-ursachen-des-weltweiten-fachkraeftemangels/> on 11. December 2024
- RICS. "Digitalization in Construction". Retrieved from <https://www.rics.org/content/dam/ricsglobal/documents/research/Digitalisation-in-construction-report-2024.pdf> on 9. December 2024
- Room 35. "The Impact: Effects Of COVID19 In The Construction Industry". Retrieved from: <https://roomthirtyfive.com/the-impact-effects-of-covid19-in-the-construction-industry/> on 6. December 2024
- Statista. "Living space per capita in apartments in Germany from 1991 to 2023". Retrieved from <https://de.statista.com/statistik/daten/studie/36495/umfrage/wohnflaeche-je-einwohner-in-deutschland-von-1989-bis-2004/> on 14. December 2024
- Statista. "Producer price index for sand and gravel in Germany from 2005 to 2023". Retrieved from <https://de.statista.com/statistik/daten/studie/1320210/umfrage/erzeugerpreisindex-von-sand-und-kies-in-deutschland/> on 5. December 2024
- StratEdge Analytics. "Construction Materials Market Size". Retrieved from: <https://www.linkedin.com/pulse/construction-materials-market-size-us-1493810-million-zzhye/> on 21. November
- U.S. Department of Commerce. "Commerce Data Show Strong Economic Gains Due to Americans Making and Spending More". Retrieved from <https://www.commerce.gov/news/blog/2024/11/commerce-data-show-strong-economic-gains-due-americans-making-and-spending-more#:~:text=The%20U.S.%20economy%20grew%202.7,reflected%20increases%20in%20consumer%20spending> on 1. December 2024
- Visual Capitalist. "Ranked: The Most Carbon-Intensive Sectors in the World". Retrieved from <https://www.visualcapitalist.com/the-most-carbon-intensive-sectors-in-the-world/> on 2. December 2024

Financial Statements

Balance Sheet Forecast in €m	FY 2017 Act	FY 2018 Act	FY 2019 Act	FY 2020 Act	FY 2021 Act	FY 2022 Act	FY 2023 Act	FY 2024 FC	FY 2025 FC	FY 2026 FC	FY 2027 FC	FY 2028 FC	FY 2029 FC	FY 2030 FC	FY 2031 FC	FY 2032 FC	FY 2033 FC
Non current assets																	
Goodwill	11,106.6	11,450.2	11,782.6	8,588.8	8,164.7	8,368.1	8,341.7	8,673.5	8,947.0	9,229.3	9,520.4	9,820.7	10,130.4	10,450.0	10,779.6	11,119.6	11,470.4
Other intangible assets	364.5	370.3	372.5	361.2	206.9	209.3	342.9	285.0	295.0	304.3	313.9	323.8	334.0	344.5	355.4	366.6	378.2
Intangible assets	11,471.1	11,820.5	12,155.1	8,950.0	8,371.6	8,577.4	8,684.6	8,958.5	9,242.0	9,533.5	9,834.3	10,144.4	10,464.4	10,794.5	11,135.0	11,486.2	11,848.5
Land and buildings	6,313.0	6,519.2	7,137.1	6,500.7	6,866.8	6,763.6	7,131.2	7,204.9	7,365.5	7,562.9	7,792.5	8,048.5	8,312.9	8,586.1	8,868.2	9,159.5	9,460.5
Plant and machinery	5,049.8	4,980.2	5,296.9	4,616.3	4,511.6	4,354.0	4,988.2	4,974.5	5,085.4	5,221.7	5,380.2	5,557.0	5,739.6	5,928.1	6,122.9	6,324.1	6,531.9
Other operating equipment	338.8	325.1	959.0	860.9	869.7	841.0	858.8	919.5	940.1	965.2	994.5	1,027.2	1,061.0	1,095.8	1,131.8	1,169.0	1,207.4
Prepayments and assets under constru	1,112.2	1,137.1	1,136.1	835.2	1,382.7	1,701.9	1,171.4	1,302.4	1,331.5	1,367.1	1,408.6	1,454.9	1,502.7	1,552.1	1,603.1	1,655.8	1,710.2
Property, plant and equipment	12,813.8	12,961.6	14,529.1	12,813.1	13,630.8	13,660.5	14,149.6	14,401.4	14,722.5	15,117.0	15,575.8	16,087.6	16,616.2	17,162.1	17,726.0	18,308.4	18,910.0
Investments in joint ventures	1,334.1	1,200.8	1,223.7	1,230.8	1,281.1	1,743.2	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4
Investments in associates	502.4	512.2	537.1	540.5	583.5	688.3	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
Financial investments	256.1	252.5	213.5	78.2	148.7	87.5	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
Loans	88.5	141.4	122.8	103.3	92.9	156.2	197.0	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4
Derivative financial instruments	-	-	31.1	39.6	16.6	40.3	6.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9
Deferred taxes	517.9	314.4	313.3	343.2	262.9	268.2	295.5	463.8	477.2	487.7	493.6	518.3	546.3	581.9	608.7	630.4	652.2
Other non-current receivables and asset	829.0	1,026.6	1,044.8	898.9	1,151.2	888.6	840.0	964.7	964.7	964.7	964.7	964.7	964.7	964.7	964.7	964.7	964.7
Non-current income tax assets	52.4	61.9	61.9	25.6	29.0	26.7	22.5	29.1	30.0	30.6	31.0	32.5	34.3	36.5	38.2	39.6	40.9
Total non-current assets	27,865.3	28,291.9	30,232.4	25,023.2	25,568.3	26,136.9	26,649.1	27,431.8	28,050.7	28,747.8	29,513.7	30,362.0	31,240.3	32,154.1	33,086.9	34,043.6	35,030.6
Current assets																	
Raw materials and consumables	823.4	920.4	970.9	882.5	1,112.1	1,330.9	1,273.7	1,272.0	1,289.7	1,295.9	1,342.6	1,412.0	1,491.2	1,575.9	1,652.3	1,725.3	1,797.7
Work in progress	308.7	336.2	346.3	295.1	261.6	380.6	378.3	382.2	391.9	392.3	404.8	424.1	446.1	469.5	490.3	509.9	529.1
Finished goods and goods for resale	733.3	767.9	861.7	784.5	819.7	931.4	989.6	984.4	994.3	998.5	1,034.0	1,086.9	1,147.3	1,211.9	1,269.9	1,325.4	1,380.3
Prepayments	15.3	10.3	20.0	9.3	18.1	26.2	28.7	28.2	28.1	28.3	29.3	30.9	32.7	34.6	36.3	38.0	39.7
Inventories	1,880.7	2,034.8	2,198.9	1,971.4	2,211.5	2,669.1	2,670.3	2,666.8	2,704.1	2,714.9	2,810.8	2,953.9	3,117.2	3,291.9	3,448.9	3,598.6	3,746.7
Current interest-bearing receivables	122.1	122.0	107.6	85.9	76.4	98.5	143.9	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5
Trade receivables	1,797.7	1,808.8	1,746.1	1,562.4	1,837.3	2,040.0	2,005.2	1,971.7	1,957.1	1,961.4	2,027.0	2,126.4	2,240.0	2,361.3	2,469.4	2,572.0	2,673.1
Other current receivables and assets	546.2	741.3	629.3	597.8	534.5	602.1	606.9	613.0	619.1	625.3	631.5	637.9	644.2	650.7	657.2	663.8	670.4
Current income tax assets	117.7	92.2	71.6	80.6	147.5	121.9	53.9	135.9	139.8	142.9	144.6	151.8	160.0	170.5	178.3	184.7	191.0
Current financial investments	10.3	10.0	10.0	-	-	-	12.3	13.0	13.8	14.6	15.4	16.2	17.0	17.8	18.6	19.4	20.2
Current derivative financial instruments	9.6	17.3	34.8	114.4	95.2	83.3	39.9	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5
Cash and cash equivalents	2,108.6	2,585.9	3,541.5	2,857.2	3,115.1	1,454.1	3,266.5	4,049.4	5,104.8	6,437.5	7,258.8	8,206.0	9,323.0	11,270.8	12,534.4	13,765.2	15,014.4
Total current assets	6,592.9	7,412.3	8,339.8	7,269.7	8,017.5	7,069.0	8,798.9	9,625.8	10,714.7	12,072.5	13,064.1	14,268.0	15,677.4	17,938.9	19,482.7	20,979.6	22,491.8
Assets held for sale	99.7	79.2	16.3	42.5	125.4	49.6	23.3	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
Balance sheet total	34,557.9	35,783.4	38,588.5	32,335.4	33,711.2	33,255.5	35,471.3	37,109.0	38,816.8	40,871.7	42,629.2	44,681.4	46,969.1	50,144.4	52,621.1	55,074.7	57,573.9
Equity																	
Subscribed share capital	595.2	595.2	595.2	595.2	595.2	579.3	558.6	584.7	584.7	584.7	584.7	584.7	584.7	584.7	584.7	584.7	584.7
Share premium	6,225.4	6,225.4	6,225.4	6,225.4	6,225.4	6,241.4	6,262.1	6,235.9	6,235.9	6,235.9	6,235.9	6,235.9	6,235.9	6,235.9	6,235.9	6,235.9	6,235.9
Retained earnings	9,494.8	10,256.6	10,988.3	8,527.8	10,015.7	10,809.1	11,854.0	13,183.8	14,455.5	15,705.1	16,919.9	18,197.1	19,544.8	20,982.2	22,487.1	24,046.7	25,661.2
Other components of equity	(1,822.4)	(1,647.7)	(821.8)	(2,077.7)	(1,049.4)	(741.9)	(1,135.5)	(1,165.3)	(1,234.0)	(1,065.2)	(1,068.4)	(1,133.7)	(1,133.3)	(1,126.9)	(1,105.5)	(1,113.5)	(1,122.6)
Treasury shares	-	-	-	-	(349.8)	(350.0)	(298.0)	(400.0)	(400.0)	(400.0)	(500.0)	(500.0)	(500.0)	-	-	-	-
Total shareholders' equity of Heidelberg	14,493.0	15,429.5	16,987.1	13,270.7	15,437.2	16,537.9	17,241.2	18,439.2	19,642.2	21,060.6	22,172.2	23,384.1	24,732.1	26,675.9	28,202.3	29,753.8	31,359.3
Non-controlling interests	1,494.3	1,392.0	1,517.2	1,277.6	1,222.3	1,086.3	1,133.5	1,194.7	1,257.6	1,322.3	1,387.5	1,456.2	1,528.7	1,605.9	1,686.8	1,770.7	1,857.5
Total equity	15,987.3	16,821.5	18,504.3	14,548.3	16,659.4	17,624.2	18,374.7	19,633.9	20,899.8	22,382.8	23,559.7	24,840.3	26,260.8	28,281.8	29,889.1	31,524.5	33,216.7
Non-current liabilities																	
Bonds payable	8,345.9	8,805.1	7,706.5	7,131.5	5,363.6	5,269.4	5,389.9	6,035.3	6,296.1	6,605.4	6,808.1	7,025.6	7,266.1	7,651.7	7,903.0	8,141.9	8,375.0
Bank loans	459.4	631.3	705.9	660.2	262.4	62.6	46.6	93.2	97.2	102.0	105.1	108.5	112.2	118.1	122.0	125.7	129.3
Other non-current financial liabilities	57.1	51.4	1,064.7	924.0	906.8	1,001.0	1,022.9	988.0	1,030.7	1,081.4	1,114.5	1,150.2	1,189.5	1,252.7	1,293.8	1,332.9	1,371.1
Non-controlling interests with put option:	18.5	21.1	25.0	25.8	-	-	-	-	-	-	-	-	-	-	-	-	-
Pension provisions	1,136.8	1,100.6	1,141.7	1,027.4	908.1	639.1	666.6	846.6	883.2	926.6	955.0	985.5	1,019.3	1,073.4	1,108.6	1,142.1	1,174.8
Deferred taxes	649.7	722.8	726.3	584.6	832.1	886.3	948.5	933.6	960.7	981.6	993.5	1,043.4	1,099.7	1,171.3	1,225.3	1,268.9	1,312.8
Other non-current provisions	1,204.0	1,053.5	1,034.7	1,152.0	1,503.0	1,364.5	1,370.9	1,351.9	1,345.8	1,352.7	1,402.1	1,475.1	1,558.5	1,647.7	1,728.3	1,805.4	1,882.0
Other non-current operating liabilities	229.9	249.7	233.4	221.4	50.6	53.6	70.3	69.2	68.9	69.3	71.8	75.6	79.8	84.4	88.5	92.5	96.4
Non-current income tax liabilities	173.5	61.3	54.6	181.9	178.6	208.8	196.5	181.1	186.3	190.4	192.7	202.4	213.3	227.2	237.7	246.1	254.7
Total non-current liabilities	12,274.8	12,696.8	12,692.8	11,908.8	10,005.2	9,485.3	9,712.2	10,498.9	10,868.9	11,309.4	11,642.8	12,066.2	12,538.4	13,226.5	13,707.2	14,155.6	14,596.0
Current liabilities																	
Bonds payable (current portion)	1,668.4	1,134.6	1,930.2	577.0	806.3	52.5	1,471.6	870.3	801.0	895.2	903.6	1,103.1	1,012.5	1,058.7	1,111.1	1,153.0	1,200.9
Bank loans (current portion)	116.0	115.1	173.7	181.9	474.0	258.6	243.7	487.3	508.3	533.3	549.7	567.2	586.7	617.8	638.1	657.4	676.2
Other current financial liabilities	111.0	159.8	383.1	353.3	413.2	465.8	444.7	413.4	440.1	469.2	481.4	492.5	509.0	538.3	556.7	572.6	588.4
Non-controlling interests with put option:	47.7	62.3	38.7	50.3	-	-	-	-	-	-	-	-	-	-	-	-	-
Pension provisions (current portion)	82.6	97.7	96.7	92.2	90.5	95.5	97.2	95.8	100.0	104.9	108.1	111.5	115.4	121.5	125.5	129.3	133.0
Other current provisions																	

Reformulated Balance Sheet in €m, as of December 31st	FY 2017 Act	FY 2018 Act	FY 2019 Act	FY 2020 Act	FY 2021 Act	FY 2022 Act	FY 2023 Act	FY 2024 FC	FY 2025 FC	FY 2026 FC	FY 2027 FC	FY 2028 FC	FY 2029 FC	FY 2030 FC	FY 2031 FC	FY 2032 FC	FY 2033 FC
Goodwill	11,106.6	11,450.2	11,782.6	8,588.8	8,164.7	8,368.1	8,341.7	8,673.5	8,947.0	9,229.3	9,520.4	9,820.7	10,130.4	10,450.0	10,779.6	11,119.6	11,470.4
Other intangible assets	364.5	370.3	372.5	361.2	206.9	209.3	342.9	285.0	295.0	304.3	313.9	323.8	334.0	344.5	355.4	366.6	378.2
Land and buildings	6,313.0	6,519.2	7,137.1	6,500.7	6,866.8	6,763.6	7,131.2	7,204.9	7,365.5	7,562.9	7,792.5	8,048.5	8,312.9	8,586.1	8,868.2	9,159.5	9,460.5
Plant and machinery	5,049.8	4,980.2	5,296.9	4,616.3	4,511.6	4,354.0	4,988.2	4,974.5	5,085.4	5,221.7	5,380.2	5,557.0	5,739.6	5,928.1	6,122.9	6,324.1	6,531.9
Other operating equipment	338.8	325.1	959.0	860.9	869.7	841.0	858.8	919.5	940.1	965.2	994.5	1,027.2	1,061.0	1,095.8	1,131.8	1,169.0	1,207.4
Prepayments and assets under construc	1,112.2	1,137.1	1,136.1	835.2	1,382.7	1,701.9	1,171.4	1,302.4	1,331.5	1,367.1	1,408.6	1,454.9	1,502.7	1,552.1	1,603.1	1,655.8	1,710.2
Deferred tax assets, net	(775.0)	(895.6)	(893.7)	(641.0)	(812.1)	(884.9)	(980.0)	(705.0)	(725.5)	(741.3)	(750.3)	(788.0)	(830.5)	(884.6)	(925.3)	(958.3)	(991.4)
Other receivables and assets, current &	358.7	476.7	392.3	341.7	233.9	645.4	652.7	711.7	714.5	717.2	720.1	722.9	725.8	728.7	731.6	734.6	737.6
Income tax assets, net, current & non-cu	(238.6)	(165.4)	(192.6)	(316.2)	(194.9)	(285.3)	(344.6)	(305.8)	(314.7)	(321.6)	(325.5)	(341.8)	(360.2)	(383.7)	(401.4)	(415.7)	(430.1)
Raw materials and consumables	823.4	920.4	970.9	882.5	1,112.1	1,330.9	1,273.7	1,272.0	1,289.7	1,295.9	1,342.6	1,412.0	1,491.2	1,575.9	1,652.3	1,725.3	1,797.7
Work in progress	308.7	336.2	346.3	295.1	261.6	380.6	378.3	382.2	391.9	392.3	404.8	424.1	446.1	469.5	490.3	509.9	529.1
Finished goods and goods for resale	733.3	767.9	861.7	784.5	819.7	931.4	989.6	984.4	994.3	998.5	1,034.0	1,086.9	1,147.3	1,211.9	1,269.9	1,325.4	1,380.3
Prepayments	15.3	10.3	20.0	9.3	18.1	26.2	28.7	28.2	28.1	28.3	29.3	30.9	32.7	34.6	36.3	38.0	39.7
Trade receivables	1,797.7	1,808.8	1,746.1	1,562.4	1,837.3	2,040.0	2,005.2	1,971.7	1,957.1	1,961.4	2,027.0	2,126.4	2,240.0	2,361.3	2,469.4	2,572.0	2,673.1
Operating cash and cash equivalents	865.7	907.6	947.0	878.2	940.3	1,069.6	1,065.4	1,049.4	1,044.6	1,050.0	1,088.3	1,145.0	1,209.7	1,279.0	1,341.5	1,401.4	1,460.8
Other provisions, current & non-current	(731.8)	(725.5)	(796.8)	(838.0)	(1,193.0)	(1,099.9)	(1,183.4)	(1,162.8)	(1,157.5)	(1,163.4)	(1,205.9)	(1,268.7)	(1,340.4)	(1,417.2)	(1,486.5)	(1,552.8)	(1,618.7)
Other operating liabilities, current & non-	(1,720.9)	(1,815.2)	(1,766.5)	(1,749.3)	(1,592.5)	(1,482.6)	(1,501.2)	(1,478.7)	(1,472.0)	(1,479.6)	(1,533.6)	(1,613.4)	(1,704.6)	(1,802.2)	(1,890.4)	(1,974.8)	(2,058.5)
Trade payables	(2,281.1)	(2,605.3)	(2,690.0)	(2,611.0)	(3,180.4)	(3,343.1)	(3,156.5)	(3,098.4)	(3,088.9)	(3,109.4)	(3,227.6)	(3,400.7)	(3,598.2)	(3,809.8)	(4,002.0)	(4,186.7)	(4,370.5)
Core invested capital	23,440.3	23,803.0	25,628.9	20,361.3	20,252.5	21,566.2	22,062.1	23,008.7	23,626.1	24,278.8	25,013.5	25,767.6	26,539.3	27,320.0	28,146.9	29,013.0	29,907.5
Other receivables and assets, current &	1,016.5	1,291.2	1,281.8	1,155.0	1,451.8	845.3	794.2	866.0	869.3	872.7	876.2	879.6	883.1	886.7	890.2	893.9	897.5
Investments in joint ventures	1,334.1	1,200.8	1,223.7	1,230.8	1,281.1	1,743.2	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4	1,698.4
Investments in associates	502.4	512.2	537.1	540.5	583.5	688.3	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
Financial investments, current & non-cu	266.4	262.5	223.5	78.2	148.7	87.5	107.9	108.6	109.4	110.2	111.0	111.8	112.6	113.4	114.2	115.0	115.8
Derivative financial instruments, current	9.6	17.3	65.9	154.0	111.8	123.6	46.8	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4
Deferred tax assets, net	643.2	487.2	480.6	399.5	242.9	267.1	327.0	235.3	242.1	247.4	250.4	262.9	277.1	295.2	308.8	319.8	330.8
Assets held for sale, net	86.8	68.0	14.9	25.4	100.5	49.3	21.1	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2
Other provisions, current & non-current	(722.2)	(583.1)	(511.1)	(540.9)	(632.3)	(540.8)	(500.6)	(491.9)	(489.6)	(492.2)	(510.1)	(536.7)	(567.0)	(599.5)	(628.8)	(656.9)	(684.7)
Non-core invested capital	3,136.8	3,256.1	3,316.4	3,042.5	3,288.0	3,263.5	3,153.8	3,218.1	3,231.2	3,238.2	3,227.4	3,217.7	3,205.9	3,195.8	3,184.4	3,171.8	3,159.5
Loans	88.5	141.4	122.8	103.3	92.9	156.2	197.0	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4
Current interest-bearing receivables	122.1	122.0	107.6	85.9	76.4	98.5	143.9	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5
Excess cash and cash equivalents	1,242.9	1,678.3	2,594.5	1,979.0	2,174.8	384.5	2,201.2	3,000.1	4,060.2	5,387.5	6,170.5	7,061.0	8,113.3	9,991.8	11,192.8	12,363.8	13,553.6
Bonds payable	(10,014.3)	(9,939.7)	(9,636.7)	(7,708.5)	(6,169.9)	(5,321.9)	(6,861.5)	(6,905.6)	(7,204.0)	(7,558.0)	(7,789.9)	(8,038.8)	(8,314.0)	(8,755.1)	(9,042.7)	(9,316.0)	(9,582.8)
Bank loans	(575.4)	(746.4)	(879.6)	(842.1)	(736.4)	(321.2)	(290.3)	(580.5)	(605.6)	(635.3)	(654.8)	(675.7)	(698.9)	(735.9)	(760.1)	(783.1)	(805.5)
Other financial liabilities, current & non-i	(168.1)	(211.2)	(1,447.8)	(1,277.3)	(1,320.0)	(1,466.8)	(1,467.6)	(1,401.4)	(1,461.9)	(1,533.8)	(1,580.8)	(1,631.3)	(1,687.2)	(1,776.7)	(1,835.1)	(1,890.5)	(1,944.7)
Non-controlling interests with put option:	(66.2)	(83.4)	(63.7)	(76.1)	-	-	-	-	-	-	-	-	-	-	-	-	-
Pension provisions, current & non-curren	(1,219.4)	(1,198.3)	(1,238.4)	(1,119.6)	(998.6)	(734.6)	(763.8)	(942.4)	(983.1)	(1,031.5)	(1,063.1)	(1,097.1)	(1,134.6)	(1,194.8)	(1,234.1)	(1,271.4)	(1,307.8)
Non-controlling interests	(1,494.3)	(1,392.0)	(1,517.2)	(1,277.6)	(1,222.3)	(1,086.3)	(1,133.5)	(1,194.7)	(1,257.6)	(1,322.3)	(1,387.5)	(1,456.2)	(1,528.7)	(1,605.9)	(1,686.8)	(1,770.7)	(1,857.5)
Net financial assets	(12,084.2)	(11,629.3)	(11,958.5)	(10,133.0)	(8,103.1)	(8,291.6)	(7,974.7)	(7,787.6)	(7,215.2)	(6,456.4)	(6,068.8)	(5,601.2)	(5,013.1)	(4,339.8)	(3,129.1)	(2,431.0)	(1,707.7)
Total shareholders equity	14,492.9	15,429.8	16,986.8	13,270.8	15,437.4	16,538.1	17,241.2	18,439.2	19,642.2	21,060.6	22,172.2	23,384.1	24,732.1	26,675.9	28,202.3	29,753.8	31,359.3

Income Statement Forecast	FY 2017 Act	FY 2018 Act	FY 2019 Act	FY 2020 Act	FY 2021 Act	FY 2022 Act	FY 2023 Act	FY 2024 FC	FY 2025 FC	FY 2026 FC	FY 2027 FC	FY 2028 FC	FY 2029 FC	FY 2030 FC	FY 2031 FC	FY 2032 FC	FY 2033 FC
Revenue	17,266.1	18,074.6	18,851.3	17,605.9	18,719.9	21,095.1	21,177.6	20,884.0	20,789.5	20,896.4	21,658.9	22,787.1	24,075.0	25,453.6	26,698.6	27,890.2	29,072.4
Change in finished goods and work in pro	38.2	57.6	67.0	(55.6)	66.8	274.4	100.6	80.9	80.5	81.0	83.9	88.3	93.3	98.6	103.4	108.1	112.6
Own work capitalised	9.7	19.9	21.0	14.4	20.0	21.9	28.8	22.5	22.4	22.6	23.4	24.6	26.0	27.5	28.8	30.1	31.4
Operating revenue	17,314.0	18,152.1	18,939.3	17,564.7	18,806.7	21,391.4	21,307.0	20,987.5	20,892.5	20,999.9	21,766.2	22,900.0	24,194.3	25,579.7	26,830.9	28,028.4	29,216.4
Other operating income	632.7	523.7	431.3	379.5	517.7	623.8	561.6	532.2	529.8	532.5	552.0	580.7	613.5	648.7	680.4	710.8	740.9
Material costs	(6,781.6)	(7,478.1)	(7,586.1)	(6,482.9)	(7,305.4)	(8,961.3)	(8,160.1)	(8,008.6)	(7,982.7)	(8,034.2)	(8,338.2)	(8,783.9)	(9,292.4)	(9,837.3)	(10,331.8)	(10,806.8)	(11,279.4)
Personnel costs	(2,989.7)	(3,031.7)	(3,187.4)	(3,025.4)	(3,108.0)	(3,216.7)	(3,414.8)	(3,357.5)	(3,352.6)	(3,380.3)	(3,514.5)	(3,709.0)	(3,930.6)	(4,168.5)	(4,385.7)	(4,595.4)	(4,804.7)
Other operating expenses	(5,082.4)	(5,295.3)	(5,306.6)	(5,007.5)	(5,392.5)	(6,359.6)	(6,269.3)	(6,155.3)	(6,137.8)	(6,179.8)	(6,416.2)	(6,761.8)	(7,156.0)	(7,578.5)	(7,962.5)	(8,331.8)	(8,699.5)
Result from equity accounted investmen	204.3	203.5	289.6	278.5	356.1	261.8	233.7	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9
Result from current operations before d	3,297.3	3,074.2	3,580.1	3,706.9	3,874.6	3,739.4	4,258.1	4,282.4	4,233.1	4,222.0	4,333.3	4,510.0	4,712.7	4,928.2	5,115.3	5,289.1	5,457.6
Depreciation and amortisation	(1,109.0)	(1,090.5)	(1,394.0)	(1,343.9)	(1,260.5)	(1,263.9)	(1,235.6)	(1,250.5)	(1,244.6)	(1,243.3)	(1,260.8)	(1,299.1)	(1,341.8)	(1,385.8)	(1,431.2)	(1,478.2)	(1,526.7)
Result from current operations	2,188.3	1,983.7	2,186.1	2,363.0	2,614.1	2,475.5	3,022.5	3,031.9	2,988.5	2,978.7	3,072.4	3,210.9	3,371.0	3,542.4	3,684.1	3,810.9	3,931.0
Additional ordinary income	98.4	240.2	164.7	27.4	775.1	124.9	164.8	125.3	219.8	246.9	172.4	174.7	173.0	203.6	199.0	187.4	183.5
Additional ordinary expenses	(231.3)	(131.8)	(342.9)	(3,705.5)	(294.0)	(318.1)	(163.9)	(123.3)	(123.3)	(123.3)	(123.3)	(123.3)	(123.3)	(123.3)	(123.3)	(123.3)	(123.3)
Additional ordinary result	(132.9)	108.4	(178.2)	(3,678.1)	481.1	(193.2)	0.9	2.0	96.5	123.6	49.1	51.4	49.7	80.3	75.7	64.1	60.2
Earnings before interest and taxes (EBI)	2,055.4	2,092.1	2,007.9	(1,315.1)	3,095.2	2,282.3	3,023.4	3,033.9	3,085.0	3,102.3	3,121.5	3,262.2	3,420.7	3,622.7	3,759.7	3,875.0	3,991.2
Interest income	56.6	49.1	52.0	40.1	29.1	31.7	74.7	76.3	80.9	85.9	112.5	128.1	146.0	167.0	204.6	228.6	252.0
Interest expenses	(362.0)	(320.8)	(316.9)	(233.0)	(220.8)	(151.2)	(206.8)	(281.5)	(245.7)	(205.1)	(215.2)	(221.8)	(228.9)	(236.7)	(249.3)	(257.4)	(265.2)
Foreign exchange gains and losses	(12.5)	1.4	(6.8)	(11.7)	9.8	(98.7)	(24.7)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)
Result from other participations	51.3	39.3	(15.2)	16.9	28.9	12.6	5.8	19.9	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
Other financial result	(100.4)	(96.4)	(88.2)	(99.9)	(48.3)	140.3	(23.3)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)
Financial result	(367.0)	(327.4)	(375.1)	(287.6)	(201.3)	(65.3)	(174.3)	(229.6)	(199.4)	(153.7)	(137.2)	(128.2)	(117.4)	(104.2)	(79.2)	(63.4)	(47.7)
Profit before tax from continuing operat	1,688.4	1,764.7	1,632.8	(1,602.7)	2,893.9	2,217.0	2,849.1	2,804.3	2,885.6	2,948.6	2,984.3	3,134.1	3,303.3	3,518.5	3,680.5	3,811.6	3,943.4
Income taxes	(579.5)	(464.1)	(358.4)	(334.5)	(946.7)	(485.0)	(658.6)	(698.6)	(718.9)	(734.6)	(743.5)	(780.8)	(823.0)	(876.6)	(916.9)	(949.6)	(982.4)
Net income from continuing operations	1,108.9	1,300.6	1,274.4	(1,937.2)	1,947.2	1,732.0	2,190.5	2,105.6	2,166.7	2,214.0	2,240.8	2,353.3	2,480.3	2,641.9	2,763.6	2,862.0	2,961.0
Net loss from discontinued operations	(50.8)	(14.2)	(32.4)	(72.3)	(45.5)	(9.1)	(103.5)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)
Profit for the financial year	1,058.1	1,286.4	1,242.0	(2,009.5)	1,901.7	1,722.9	2,087.0	2,053.1	2,114.2	2,188.2	2,300.7	2,427.7	2,589.3	2,711.0	2,809.4	2,908.4	2,908.4
Thereof attributable to non-controlling in	140.5	143.2	151.3	130.0	142.8	126.4	157.9	153.4	157.7	162.1	163.6	172.0	181.7	193.6	202.8	210.2	217.5
Thereof attributable to Heidelberg Mat	917.6	1,143.2	1,090.7	(2,139.5)	1,758.9	1,596.5	1,929	1,900	1,956	1,999.4	2,024.7	2,128.7	2,246.1	2,395.7	2,508.2	2,599.3	2,690.9

For information:

Gross profit	10,532.4	10,674.0	11,353.2	11,081.8	11,501.3	12,430.1	13,146.9	12,978.9	12,909.8	12,965.7	13,428.0	14,116.1	14,901.9	15,742.5	16,499.1	17,221.6	17,937.0
Gross margin in %	60.8%	58.8%	59.9%	63.1%	61.2%	58.1%	61.7%	61.8%	61.8%	61.7%	61.7%	61.6%	61.6%	61.5%	61.5%	61.4%	61.4%
EBITDA	3,164.4	3,182.6	3,401.9	28.8	4,355.7	3,546.2	4,259.0	4,284.4	4,329.5	4,345.6	4,382.3	4,561.4	4,762.5	5,008.5	5,190.9	5,353.2	5,517.8
in % of sales	18.3%	17.5%	18.0%	0.2%	23.2%	16.6%	20.0%	20.4%	20.7%	20.9%	20.1%	19.9%	19.7%	19.6%	19.3%	19.1%	18.9%
EBIT	2,055.4	2,092.1	2,007.9	(1,315.1)	3,095.2	2,282.3	3,023.4	3,033.9	3,085.0	3,102.3	3,121.5	3,262.2	3,420.7	3,622.7	3,759.7	3,875.0	3,991.2
in % of sales	11.9%	11.5%	10.6%	-7.5%	16.5%	10.7%	14.2%	14.5%	14.8%	14.3%	14.2%	14.1%	14.2%	14.0%	13.8%	13.7%	13.7%
Other comprehensive income	-2,258.6	272.4	808.5	-1,564.6	1,285.2	249.7	-544.0	-250.2	-250.2	-250.2	-250.2	-250.2	-250.2	-250.2	-250.2	-250.2	-250.2

Reformulated Consolidated Income Statement in €m	FY 2017 Act	FY 2018 Act	FY 2019 Act	FY 2020 Act	FY 2021 Act	FY 2022 Act	FY 2023 Act	FY 2024 FC	FY 2025 FC	FY 2026 FC	FY 2027 FC	FY 2028 FC	FY 2029 FC	FY 2030 FC	FY 2031 FC	FY 2032 FC	FY 2033 FC
Revenue	17,266.1	18,074.6	18,851.3	17,605.9	18,719.9	21,095.1	21,177.6	20,884.0	20,789.5	20,896.4	21,658.9	22,787.1	24,075.0	25,453.6	26,698.6	27,890.2	29,072.4
Change in finished goods and work in progress	38.2	57.6	67.0	(55.6)	66.8	274.4	100.6	80.9	80.5	81.0	83.9	88.3	93.3	98.6	103.4	108.1	112.6
Own work capitalised	9.7	19.9	21.0	14.4	20.0	21.9	28.8	22.5	22.4	22.6	23.4	24.6	26.0	27.5	28.8	30.1	31.4
Operating revenue	17,314.0	18,152.1	18,939.3	17,564.7	18,806.7	21,391.4	21,307.0	20,987.5	20,892.5	20,999.9	21,766.2	22,900.0	24,194.3	25,579.7	26,830.9	28,028.4	29,216.4
Material costs	(6,781.6)	(7,478.1)	(7,586.1)	(6,482.9)	(7,305.4)	(8,961.3)	(8,160.1)	(8,008.6)	(7,982.7)	(8,034.2)	(8,338.2)	(8,783.9)	(9,292.4)	(9,837.3)	(10,331.8)	(10,806.8)	(11,279.4)
Personnel costs	(2,801.8)	(2,816.0)	(2,975.1)	(2,822.9)	(2,908.8)	(3,011.1)	(3,198.9)	(3,154.9)	(3,150.4)	(3,176.4)	(3,302.5)	(3,485.2)	(3,693.5)	(3,917.0)	(4,121.1)	(4,318.2)	(4,514.9)
Other operating expenses	(5,044.4)	(5,243.5)	(5,243.5)	(4,939.1)	(5,353.5)	(6,205.8)	(6,129.5)	(6,087.7)	(6,070.4)	(6,112.0)	(6,345.7)	(6,687.5)	(7,077.4)	(7,495.3)	(7,875.1)	(8,240.4)	(8,604.0)
Depreciation and amortization	(1,109.0)	(1,090.5)	(1,394.0)	(1,343.9)	(1,260.5)	(1,263.9)	(1,235.6)	(1,250.5)	(1,244.6)	(1,243.3)	(1,260.8)	(1,299.1)	(1,341.8)	(1,385.8)	(1,431.2)	(1,478.2)	(1,526.7)
Result before taxes	1,577.2	1,524.0	1,740.6	1,975.9	1,978.5	1,949.3	2,582.9	2,485.8	2,444.4	2,434.0	2,519.0	2,644.1	2,789.1	2,944.4	3,071.7	3,184.8	3,291.4
Statutory taxes	(468.5)	(452.6)	(517.0)	(587.0)	(587.6)	(579.1)	(767.3)	(738.4)	(726.1)	(723.0)	(748.3)	(785.4)	(828.5)	(874.6)	(912.4)	(946.1)	(977.7)
Core tax adjustments	38.0	29.1	133.0	81.0	(64.8)	176.9	161.1	138.0	138.0	138.0	138.0	138.0	138.0	138.0	138.0	138.0	138.0
Core result	1,146.7	1,100.5	1,356.6	1,469.9	1,326.1	1,547.1	1,976.7	1,885.4	1,856.3	1,849.0	1,908.7	1,996.7	2,098.6	2,207.8	2,297.2	2,376.8	2,451.7
Other operating income	632.7	523.7	431.3	379.5	517.7	623.8	561.6	532.2	529.8	532.5	552.0	580.7	613.5	648.7	680.4	710.8	740.9
Personnel costs	(187.9)	(215.7)	(212.3)	(202.5)	(199.2)	(205.6)	(215.9)	(219.2)	(218.8)	(220.7)	(229.4)	(242.1)	(256.6)	(272.1)	(286.3)	(300.0)	(313.6)
Other operating expenses	(38.1)	(51.7)	(63.1)	(68.3)	(39.0)	(153.7)	(139.8)	(98.0)	(97.7)	(98.4)	(102.2)	(107.7)	(114.0)	(120.7)	(126.8)	(132.7)	(138.5)
Result from equity accounted investment	204.3	203.5	289.6	278.5	356.1	261.8	233.7	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9
Additional ordinary result	(132.9)	108.4	(178.2)	(3,678.1)	481.1	(193.2)	0.9	2.0	96.5	123.6	49.1	51.4	49.7	80.3	75.7	64.1	60.2
Interest income	56.6	49.1	52.0	40.1	29.1	31.7	74.7	76.3	80.9	85.9	112.5	128.1	146.0	167.0	204.6	228.6	252.0
Foreign exchange gains and losses	(12.5)	1.4	(6.8)	(11.7)	9.8	(98.7)	(24.7)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)
Results from other participations	51.3	39.3	(15.2)	16.9	28.9	12.6	5.8	19.9	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
Result before taxes	573.5	658.0	297.3	3,245.6	1,184.5	278.7	496.3	576.7	663.9	696.3	655.2	683.8	712.0	776.5	820.8	844.1	874.2
Adjustment of result by goodwill impairment	-	-	-	(2,693.7)	-	-	-	-	-	-	-	-	-	-	-	-	-
Adj. result before taxes	573.5	658.0	297.3	(551.9)	1,184.5	278.7	496.3	576.7	663.9	696.3	655.2	683.8	712.0	776.5	820.8	844.1	874.2
Statutory taxes	(170.3)	(195.4)	(88.3)	164.0	(351.8)	(82.8)	(147.4)	(171.3)	(197.2)	(206.8)	(194.6)	(203.1)	(211.5)	(230.6)	(243.8)	(250.7)	(259.7)
Non-core tax adjustments	(115.9)	34.8	(6.3)	(91.4)	(22.4)	(3.3)	26.6	(15.3)	(15.3)	(15.3)	(15.3)	(15.3)	(15.3)	(15.3)	(15.3)	(15.3)	(15.3)
Net loss from discontinued operations	(50.8)	(14.2)	(32.4)	(72.3)	(45.5)	(9.1)	103.5	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)	(52.6)
Other comprehensive income, before tax	(2,258.6)	272.4	808.5	(1,564.6)	1,285.2	249.7	(544.0)	(250.2)	(250.2)	(250.2)	(250.2)	(250.2)	(250.2)	(250.2)	(250.2)	(250.2)	(250.2)
Non-core result	(2,022.1)	751.6	978.8	(2,116.2)	2,050.0	433.2	(272.0)	87.4	148.6	171.4	142.5	162.6	182.4	227.8	259.0	275.3	296.5
Interest expenses	(362.0)	(320.8)	(316.9)	(233.0)	(220.8)	(151.2)	(206.8)	(281.5)	(245.7)	(205.1)	(215.2)	(221.8)	(228.9)	(236.7)	(249.3)	(257.4)	(265.2)
Other financial result	(100.4)	(96.4)	(88.2)	(99.9)	(48.3)	140.3	(23.3)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)	(23.9)
Result before taxes	(462.4)	(417.2)	(405.1)	(332.9)	(269.1)	(10.9)	(230.1)	(305.4)	(269.6)	(229.0)	(239.0)	(245.7)	(252.7)	(260.6)	(273.1)	(281.3)	(289.1)
Statutory taxes	137.3	123.9	120.3	98.9	79.9	3.2	68.4	90.7	80.1	68.0	71.0	73.0	75.1	77.4	81.1	83.6	85.9
Financial result	(325.1)	(293.3)	(284.8)	(234.0)	(189.2)	7.7	(161.7)	(214.7)	(189.5)	(161.0)	(168.0)	(172.7)	(177.7)	(183.2)	(192.0)	(197.8)	(203.2)
Total comprehensive income	(1,200.5)	1,558.8	2,050.6	(880.3)	3,186.9	1,972.7	1,542.9	1,758.1	1,815.4	1,859.4	1,883.2	1,986.6	2,103.4	2,252.4	2,364.2	2,454.4	2,545.0

Cash Flow Statement Forecast	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
in €m	Act	Act	Act	Act	Act	Act	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
Net income from continuing operations	1,300.3	1,274.6	(1,937.0)	1,947.3	1,732.0	2,190.4	2,105.6	2,166.7	2,214.0	2,240.8	2,353.3	2,480.3	2,641.9	2,763.6	2,862.0	2,961.0
Income taxes	464.1	358.4	334.5	946.7	485.0	658.6	698.6	718.9	734.6	743.5	780.8	823.0	876.6	916.9	949.6	982.4
Interest income/expenses	271.7	264.9	192.9	191.7	119.5	132.1	205.2	164.8	119.2	102.7	93.6	82.9	69.7	44.7	28.8	13.2
Dividends received	249.8	216.9	223.3	301.8	209.3	203.4	197.3	197.4	197.4	197.4	197.4	197.4	197.4	197.4	197.4	197.4
Interest received	107.3	132.6	102.3	75.0	272.5	158.9	215.9	466.5	337.3	290.6	265.0	234.7	197.3	126.5	81.6	37.4
Interest paid	(507.9)	(485.2)	(367.6)	(287.6)	(211.6)	(321.9)	(419.9)	245.9	177.7	153.2	139.7	123.7	104.0	66.6	43.0	19.7
Income taxes paid	(260.8)	(294.1)	(340.9)	(747.3)	(359.9)	(522.3)	(550.3)	(566.3)	(578.6)	(585.6)	(615.0)	(648.2)	(690.5)	(722.3)	(748.0)	(773.9)
Depreciation, amortisation, and impairment	1,129.8	1,468.1	4,832.8	1,104.9	1,402.3	1,233.3	1,250.5	1,244.6	1,243.3	1,260.8	1,299.1	1,341.8	1,385.8	1,431.2	1,478.2	1,526.7
Other eliminations	(354.9)	(33.1)	98.7	(607.4)	(168.0)	(78.8)	151.2	(823.3)	(499.2)	(470.9)	(536.8)	(120.8)	(172.4)	(572.6)	(530.3)	(467.0)
Cash flow	2,399.4	2,903.1	3,139.0	2,925.1	3,481.1	3,653.7	3,854.1	3,815.2	3,945.5	3,932.4	3,977.0	4,514.6	4,609.7	4,252.0	4,362.4	4,496.9
Changes in operating assets	(332.4)	118.6	125.1	(650.5)	(900.0)	(83.4)	(84.6)	(32.8)	(24.4)	(169.5)	(256.0)	(291.5)	(312.9)	(279.5)	(265.2)	(262.2)
Changes in operating liabilities	225.8	(45.2)	110.5	443.7	95.3	(121.6)	(383.8)	(53.0)	159.9	212.4	501.6	253.1	430.4	387.7	360.9	364.8
Changes in working capital	(106.6)	73.4	235.6	(206.8)	(804.7)	(205.0)	(468.4)	(85.8)	135.5	42.9	245.7	(38.4)	117.5	108.2	95.7	102.6
Decrease in provisions through cash payments	(323.7)	(300.3)	(328.2)	(244.8)	(241.1)	(220.5)										
Cash flow from operating activities – continuing operation	1,969.1	2,676.2	3,046.4	2,473.5	2,435.3	3,228.2	3,385.7	3,729.4	4,081.0	3,975.3	4,222.7	4,476.2	4,727.2	4,360.2	4,458.1	4,599.5
Cash flow from operating activities – discontinued operations	(0.9)	(12.7)	(19.5)	(77.4)	(15.2)	(23.1)										
Cash flow from operating activities	1,968.2	2,663.5	3,026.9	2,396.1	2,420.1	3,205.1	3,385.7	3,729.4	4,081.0	3,975.3	4,222.7	4,476.2	4,727.2	4,360.2	4,458.1	4,599.5
Intangible assets	(24.2)	(47.8)	(47.4)	(27.2)	(35.1)	(57.8)	(304.0)	(313.5)	(323.5)	(333.7)	(344.2)	(355.1)	(366.3)	(377.8)	(389.7)	(402.0)
Property, plant and equipment	(1,036.6)	(1,135.0)	(921.9)	(1,484.2)	(1,300.1)	(1,271.9)	(1,485.7)	(1,548.1)	(1,619.5)	(1,700.7)	(1,791.2)	(1,850.1)	(1,910.9)	(1,973.6)	(2,038.5)	(2,105.5)
Government grants	-	-	-	91.9	75.6	94.4	-	-	-	-	-	-	-	-	-	-
Subsidiaries and other business units	(623.9)	(89.6)	(76.3)	(144.8)	(63.5)	(414.2)	(226.1)	(226.1)	(226.1)	(226.1)	(226.1)	(226.1)	(226.1)	(226.1)	(226.1)	(226.1)
Other financial assets, associates, and joint ventures	(38.7)	(41.4)	(21.8)	(35.0)	(487.8)	(200.2)	(74.0)	(71.5)	(69.1)	(66.6)	(64.2)	(61.7)	(59.3)	(56.8)	(54.4)	(51.9)
Investments (cash outflow)	(1,723.4)	(1,313.8)	(1,067.4)	(1,599.3)	(1,810.9)	(1,849.7)	(2,089.7)	(2,159.3)	(2,238.1)	(2,327.0)	(2,425.7)	(2,492.9)	(2,562.5)	(2,634.4)	(2,708.7)	(2,785.5)
Intangible assets	-	3.1	0.3	0.3	-	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Property, plant and equipment	-	173.1	67.1	183.8	144.8	135.2	136.5	138.9	142.0	145.8	150.2	155.1	160.2	165.5	170.9	176.6
Subsidiaries and other business units	280.4	159.2	1.9	2,004.9	144.8	26.6	109.3	109.3	109.3	109.3	109.3	109.3	109.3	109.3	109.3	109.3
Other financial assets, associates, and joint ventures	282.0	71.8	48.9	30.1	39.0	207.8	74.0	71.5	69.1	66.6	64.2	61.7	59.3	56.8	54.4	51.9
Divestments (cash inflow)	562.4	407.2	118.2	2,219.1	328.6	370.1	320.2	320.3	320.9	322.3	324.3	326.8	329.5	332.3	335.3	338.5
Cash from changes in consolidation scope	26.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cash flow from investing activities – continuing operation	(1,134.3)	(906.6)	(949.2)	619.8	(1,482.3)	(1,479.6)	(1,769.5)	(1,839.0)	(1,917.2)	(2,004.7)	(2,101.4)	(2,166.1)	(2,233.0)	(2,302.1)	(2,373.4)	(2,447.0)
Cash flow from investing activities – discontinued operations	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cash flow from investing activities	(1,134.3)	(905.7)	(949.2)	619.8	(1,482.3)	(1,479.6)	(1,769.5)	(1,839.0)	(1,917.2)	(2,004.7)	(2,101.4)	(2,166.1)	(2,233.0)	(2,302.1)	(2,373.4)	(2,447.0)
Capital increase of/repayment to non-controlling interests	7.6	(0.2)	(10.2)	(0.5)	(1.7)	0.7	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)
Dividend to Heidelberg Materials AG shareholders	(377.0)	(416.7)	(119.1)	(436.5)	(458.3)	(484.1)	(569.9)	(684.8)	(749.8)	(809.9)	(851.5)	(898.4)	(958.3)	(1,003.3)	(1,039.7)	(1,076.4)
Dividends to non-controlling interests	(187.5)	(169.4)	(203.8)	(181.2)	(169.4)	(94.9)	(92.2)	(94.8)	(97.4)	(98.3)	(103.4)	(109.2)	(116.4)	(121.9)	(126.3)	(130.7)
Acquisition of treasury shares	-	-	-	(349.8)	(350.0)	(298.0)	(400.0)	(400.0)	(400.0)	(500.0)	(500.0)	(500.0)	-	-	-	-
Decrease in ownership interests in subsidiaries	5.9	209.2	1.8	2.9	2.7	-	-	-	-	-	-	-	-	-	-	-
Increase in ownership interests in subsidiaries	(25.6)	(92.2)	(21.8)	(102.5)	(78.4)	-	-	-	-	-	-	-	-	-	-	-
Proceeds from bond issuance and loans	1,693.1	860.5	659.1	1.7	1.9	1,504.6										
Repayment of bonds, loans and lease liabilities	(1,520.1)	(1,324.7)	(2,893.4)	(1,803.8)	(1,393.7)	(737.5)	268.0	384.1	455.5	298.4	320.3	354.2	567.8	370.1	351.7	343.3
Changes in short-term financial liabilities	55.4	60.1	(53.8)	30.0	(92.0)	243.9										
Cash flow from financing activities	(348.2)	(873.4)	(2,641.2)	(2,839.7)	(2,538.9)	134.7	(794.8)	(796.2)	(792.4)	(1,110.4)	(1,135.2)	(1,154.1)	(507.6)	(755.8)	(815.0)	(864.5)
Net change in cash and cash equivalents – continuing operat	486.9	897.1	(544.0)	253.6	(1,585.9)	1,883.3	821.5	1,094.2	1,371.5	860.1	986.0	1,155.9	1,986.6	1,302.4	1,269.7	1,288.0
Net change in cash and cash equivalents – discontinued oper	(0.9)	(12.7)	(19.5)	(77.4)	(15.2)	(23.1)	(24.8)	(24.8)	(24.8)	(24.8)	(24.8)	(24.8)	(24.8)	(24.8)	(24.8)	(24.8)
Net change in cash and cash equivalents	486.0	884.4	(563.5)	176.2	(1,601.1)	1,860.2	796.7	1,069.4	1,346.7	835.3	961.2	1,131.1	1,961.8	1,277.6	1,244.9	1,263.2
Effect of exchange rate changes	(6.7)	73.5	(108.1)	64.8	(60.1)	(47.6)	(14.0)	(14.0)	(14.0)	(14.0)	(14.0)	(14.0)	(14.0)	(14.0)	(14.0)	(14.0)
Cash and cash equivalents at 1 January	2,108.8	2,588.1	3,546.0	2,874.4	3,115.4	1,454.2	3,266.8	4,049.4	5,104.8	6,437.5	7,258.8	8,206.0	9,323.0	11,270.8	12,534.4	13,765.2
Cash and cash equivalents at 31 December	2,588.1	3,546.0	2,874.4	3,115.4	1,454.2	3,266.8	4,049.4	5,104.8	6,437.5	7,258.8	8,206.0	9,323.0	11,270.8	12,534.4	13,765.2	15,014.4

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Report Recommendations

Buy	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
Hold	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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